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GIBBON'S

Catechism of Music

A TEXT BOOK by

GIBBON CHAMBERS KILLOUGH

PHILADELPHIA

THEODORE PRESSER

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PRICE 50 CENTS

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To those
luminaries of the
Musical Firmament whose
testimonials of favor adorn this
work, and to the loved ones and friends
who have in any way encouraged the writer
during her greatest trials, as well as in her musical
work — and upon whom may the Blessings of
our Heavenly Father rest — this little
volume is dedicated as a feeble
token of gratitude and
affection by the
Author.

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INTRODUCTORY REMARKS.

AS a text book this little volume is not designed to cover new ground, but to present the fundamental principles of music in so simple and yet so concise a manner, that the student cannot fail to receive *light* on an *old* subject.

Its aim is to guide the student over a seemingly much traveled, yet, in many instances sadly overlooked, field: to aid him or her to surmount the numerous difficulties which continually arise in the study of musical theory, and to create a desire to know more.

In this — after the expenditure of much time and labor in research and the preparation of a work to meet the requirements of a thorough and complete text book, as a means to greater results — it is believed that the writer's efforts have been eminently successful.

As some acquaintance with an individual or subject excites an interest in that individual or subject, items of history — for the most part in the form of footnotes — have been introduced from time to time.

The topical index appended will be found to aid greatly in pursuing the study of this book.

A few Answers rather too far reaching for the younger pupils, will be simplified orally by the tact of the teacher.

The teacher's judgment will be exercised as to where the young student shall begin the study.

Knowledge and success come only to the studious and persevering.

With the sincere hope that this work may not only give useful information, but prove a helpful stimulus to the student, and with the best wishes of its Author for all who peruse its pages, it goes forth to the Public.

NOTE.—The Author takes pleasure in thus acknowledging valuable suggestions and criticisms from Mrs. H. H. A. Beach, Composer, Boston, and Mme. A. Pupin, Pianiste, Author and Teacher, New York City.

The testimonial of every teacher of music, musician, student, and lover of music, who has *carefully* studied the entire work, including "Introductory Remarks," is desired.

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TOPICAL INDEX.

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GIBBON'S CATECHISM OF MUSIC.

CHAPTER I.

MATERIAL OF MUSIC.

1. What is sound?

Ans. Anything that can be heard.

2. What is tone?

Ans. Tone is sound that possesses true pitch.

3. Is all tone sound?

Ans. It is.

4. If all tone is sound, may we not reverse it and say that all sound is tone?

Ans. We may not. Tone alone has pitch, and any noise that comes to our ears is sound, whether it has pitch or not.

5. How many classes of sound have we?

Ans. Two: viz., one that has pitch, and one that has no pitch; e. g., musical instruments, the voice, many noises made by machinery, the striking of certain metals against each other, and other sounds not here mentioned are examples of sound that has pitch, while the click of the telegraph key is an example of sound that has no pitch.

6. What is music?

Ans. Music is a succession or combination of tones arranged according to the laws of melody and harmony.

7. What is the material of music?

Ans. Sound, because tone is developed from sound.

CHAPTER II.

DIFFERENT CLASSES OF MUSIC.

8. How many kinds or classes of music have we?
Ans. Two.
9. What are they?
Ans. Vocal and instrumental.
10. Which was used first?
Ans. Vocal. (See Obs. 1.)
11. How many voices are there in music?
Ans. Four.
12. Name them.
Ans. Soprano, alto, tenor, and bass.

CHAPTER III.

DIFFERENT STYLES OF MUSIC.

13. How many styles of music are there?
Ans. Two.
14. What are they?
Ans. Monophonic, or one voiced, and polyphonic, or many voiced.

15 When we say "one voiced" and "many voiced" are we to infer that only the voice of one individual is heard in a musical composition of the "one voiced" class, and the voices of a greater number of individuals are heard in the "many voiced" class?

Ans. We are not. In the monophonic style of music, few or many persons may sing either of the four voices (soprano for example) at the same time, and yet all be singing the one voice or part. Only one voice (soprano) is represented by the great number of persons; there being neither alto, tenor, nor bass singing at all. In the polyphonic, or many voiced style of music, there is more

than one voice represented or heard at the same time; e. g., if one person sings soprano, another alto, another tenor, and another bass in the same piece of music, and at the same time, the style of music is polyphonic, although only four persons are singing, because alto, tenor, soprano, and bass are sung at the same time. If only soprano and alto are heard at the same time it is polyphonic. If only bass and tenor, or bass and soprano, or bass and alto, or bass, tenor, and alto are sung at the same time, it is polyphonic. Again, if a number of persons are singing soprano, and only one person is singing bass at the same time, the music is polyphonic, though one voice is sung by a number of persons, and the other by only one person.

Obs. 1. In the absence of proof to the contrary, and in view of the frequent mentioning in Holy writ of God's children singing praises to His holy name in times remote, we have no cause to doubt that vocal music is the eldest branch of the art; therefore it is safe to assume that the monophonic or homophonic *style* of music (which may or may not have an accompaniment) was practised anterior to the polyphonic (the pure form of which is unaccompanied). While it is true that a school (established by Hilarius) for the education of the choristers of Rome was in existence as early as the fifth century — and it is said that one was founded in the fourth century — there is no creditable record of a second melody or part being harmoniously sung with the principal melody earlier than the latter part of the ninth century.

However, the first polyphonic[1] *school* of *composition*, called the "First Flemish School," was established about four centuries later, while the first *monodic* or *homophonic school* of *composition*, called the "First Monodic School" of Florence, was established about two centuries later still. In view of these historical statements, it is clear that the *monodic school* of *composition* was only a revival of the ancient *monophonic practice* governed by or based on the laws of modern harmony.

16. Is instrumental music ever monophonic or polyphonic?

Ans. Certainly. The various tones of which the instruments are capable also give us all the voices.

[1] The student is advised to make a special study of the above mentioned two styles of composition, and in this connection it is important that he or she also carefully study the laws of harmony which govern, or on which the monophonic style is based, and counterpoint, which governs the polyphonic style.

CHAPTER IV.

MUSIC UNDER TWO HEADS OF LEARNING.

17. Under how many heads of learning does the study of music in its broadest sense come?

Ans. Two.

18. What are they?

Ans. Science and art.

19. Into how many branches is the science of music divided, and what are they?

Ans. Three: viz., rhythmics, melodics, and dynamics; classified as follows:

Rhythmics	Melodics.	Dynamics.
Lengths of tones, measures, and movements.	Staff.	Quality and the various degrees of power of tone (loud, soft, etc.).
	Pitches.	
	Clefs.	

20. In reducing music to a written science, what was found necessary to use?

Ans. Lines, spaces, dots, dashes, and a great number of other characters, each of which had a particular name and use, and was introduced as it was found to be necessary.

21. Which of these were necessary first of all?

Ans. Lines, spaces, and dots.

22. Of what is the staff composed?

Ans. Lines and spaces.

23. Of how many lines and spaces does the present staff consist?

Ans. Five parallel lines and their intervening spaces. This form of staff has been in general use since the fifteenth century.

24. Of how many lines and spaces did the first staff consist?

Ans. One line and two spaces; invented about the beginning of the tenth century.

25. For what purpose was the staff designed?

Ans. To represent pitches, degrees; i. e., high and low tones.

CHAPTER V.

DEGREES IN MUSIC.

26. What is a degree in music?

Ans. Each line and each space of the staff is called a degree in the written science of music. (Also distinction or titles of Doctor and Bachelor, which are conferred on those who arrive at a certain degree of learning in music.)

27. How many degrees does the present staff give us?

(PRESENT STAFF.)

Ans. Eleven. The five lines and their four intervening spaces, and the space just above the staff, and the space just below it.

28. How many degrees did the first staff give us?

Ans. Three. Other lines were gradually added and taken away until the staff reached its present form.[1]

29. Were musicians content with the present form of the staff?

Ans. They were not.

30. What was the cause of their dissatisfaction?

Ans. Eleven tones were found to be insufficient for the compass desired.

31. What was used to obtain more tones and yet avoid the awkwardness of a still larger staff?

Ans. Short lines, called added or leger lines, placed parallel with the staff above and below it. (See diagram of key board and staff.)

32. Are these added lines and their spaces called degrees?

Ans. They are; because all lines and spaces belonging to the staff give us a greater number of tones.

33. What are fundamental tones?

Ans. Tones which are given us by the degrees of the staff.

34. Are there others beside the fundamental tones?

Ans. Yes, there are others, called "between-lying tones," which were discovered from time to time.

---

[1] The four line staff is still in use for plain chant in some of the old churches.

35. What signs are used to distinguish fundamental tones from the between-lying tones?

Ans. Characters called sharps (♯) and flats (♭). These are also called tone elevations and depressions.[1]

36. Are there not other between-lying tones?

Ans. Yes; later, others called "double elevations" — represented by the double sharp[2] (𝄪) or (×) and "double depressions" represented by double flats (𝄫) were discovered and added.

CHAPTER VI.

CLEFS AND BRACE.

37. What is a clef?

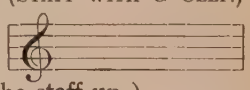
Ans. A clef is a character placed at the beginning of the staff to name the lines and spaces or pitches.

38. How many clefs are there in modern use?

Ans. Three:[3] viz., the treble or G clef, thus, 𝄞; bass or F clef, thus, 𝄢, and the tenor or C clef, thus, 𝄡.

39. What does the treble or G clef indicate?

(STAFF WITH G CLEF.)



Ans. That the second line reading from the bottom of staff up is G, because the curl or body of this clef is always placed on the second line. (Count from the bottom of the staff up.)

---

[1] The flat and natural were derived from two forms of the letter B toward the middle of the eleventh century, when musical sounds were generally expressed by letters. The square ♮ a little altered in shape is the ♮, and the round or Roman ♭ the ♭ of modern music. The lower B or B♭ added the seventh tone to the six tone scale (hexachord) and thus laid the foundation of all modern chromatic alterations.

The sharp came into use about two centuries later; that is, no traces of it appear earlier than near the close of the thirteenth century. It was formerly written as a square B crossed out—a St. Andrew's cross ×. Double sharps and flats are modern requirements.

[2] Some theorists maintain that double sharps and double flats are only new names for primary tones.

[3] The F, C, and G clefs arose from the custom of placing those letters at the beginning of certain lines of the staff to name them, in the eleventh century.

40. What does the F clef indicate?

Ans. That the fourth line of the staff on which it is placed has the the name of F, because it is hung on that line.

(PRESENT STAFF WITH F CLEF.)

41. What does C or tenor clef indicate?

Ans. That the third space of the staff on which it is placed represents middle C or C below the staff. The name "tenor C" properly is the C next below middle C. This clef is not used at present except for vocal score and in orchestral music.

(STAFF WITH C CLEF.)

42. Which voices are usually written on the G clef staff?

Ans. The soprano and alto.

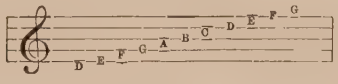
43. Which voices are usually written on the F or bass clef staff?

Ans. Bass and tenor. By this means a smaller number of staves may be used. There are also other signs for the C clef, which when used as formerly, are variously used; thus, , , . These were all C clefs in times past. When either of them was placed on the first line, it was used for the soprano, on the second for mezzo or low soprano, on the third for alto, and on the fourth for tenor.

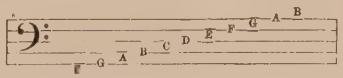
44. How are the degrees of the staff named?

Ans. For the first seven letters of the alphabet as follows: A, B, C, D, E, F, and G.

Treble or G clef staff, thus,



Bass or F clef staff, thus,



Observe that on the treble clef staff, the *second* line is G, while on the bass clef staff, the *first* line is G. The latter is situated one line lower on the staff than second line G on the treble staff; G being lower on the staff, places the other bass staff names lower also.

45. Are the alphabetical staff names used in vocal music?

Ans. Not for practical use. Instead the Italian syllables: Do, Re, Mi, Fa, Sol, La, Si, Do are used.

Obs. 2. The syllable Ti (pronounced tēē) is used instead of Si by many of the best teachers of singing.

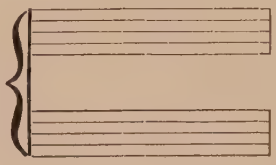
46. What is a brace? (BRACE.)

Ans. It is a character used to join together two or more staves of music.

47. What is a score?

Ans. Two or more staves joined together by the brace.

(SCORE.)



CHAPTER VII.

NOTES.

48. What characters were first used to represent tone?

Ans. In very early times when harmony was unknown, and prior to the origin of the staff, musical sounds were represented by letters of the alphabet; and several hundred years later, by various characters employed in sacred uses placed above the syllables to which they were to be sung; the distances above the words indicating the rise and fall of the melody.

Points written upon the lines of the staff only were brought into use about the beginning of or just before the eleventh century.

49. Why was the use of points discontinued?

Ans. Because of their inability to express different lengths of tones. By following the degrees of the staff, high and low tones were obtained, but the length of each tone was the same; and while high and low tones were necessary, it was also found necessary to have differing lengths of tones to give variety to the music.

50. What succeeded the points as tone signs?

Ans. A kind of notes, toward the close of the eleventh century. These were in time superseded by notes whose definite and proportionate values were the same as our present round headed notes, which in the eighteenth century supplanted all others.

51. What are notes?

Ans. Characters whose different *shapes* indicate different *lengths* of tones.

Obs. 3. *High* or *low* tone is yet indicated by the *high* or *low position* of the *note on the staff.*

52. How many notes were formerly used?

Ans. Three: viz., the maxima or large (𝌈), the longa or long (𝌉), and the brevis or breve (𝌊).

53. What was the value of these notes?

Ans. The "large" was equal to eight of the whole notes now in use, the long was equal to four whole notes, and the breve was equal to two whole notes.

The first two are entirely out of use, but the breve is sometimes seen in instrumental music.

54. What difficulty presented itself in the use of these notes?

Ans. They were found to be entirely too long to be of practical value.

Triple Octave
Double Octave
Great Octave
Small Octave
One-lined Octave
Two-lined Octave
Three-lined Octave
Four-lined Octave
Five-lined Octave

CHAPTER VIII.

NOTES. (Continued.)

55. We have now passed through the ages of several kinds of tone signs; what was the next improvement?

Ans. A greater variety of notes representing a greater number of *lengths* of tones. At present there is a note for the shortest tone practicable, as well as the longest tone desired in the writing or playing of music.

56. Name the notes that are in common use at present.

Ans. Whole note,[1] half note, quarter note, eighth note, sixteenth note, thirty-second note, sixty-fourth note.

57. Describe the whole note.

Ans. It is like an elongated letter O, or is an open note without a stem, thus, (𝅝).

58. Describe the half note.

Ans. It is an open note with a stem, thus, (𝅗𝅥).

59. Describe the quarter note.

Ans. It is a closed note with a stem, thus, (♩).

60. Describe the eighth note.

Ans. It is a closed note with a stem and one flag, thus, (♪).

61. Describe the sixteenth note.

Ans. It is a closed note with a stem and two flags, thus, (𝅘𝅥𝅯).

62. Describe the thirty-second note.

Ans. It is a closed note with a stem and three flags, thus, (𝅘𝅥𝅰).

63. Describe the sixty-fourth note.

Ans. It is a closed note with a stem and four flags, thus, (𝅘𝅥𝅱).

---

[1] The double whole note written thus, (𝅜), is the longest note in present use; and the one hundred twenty-eighth note, thus, (𝅘𝅥𝅲), and the two hundred fifty-sixth, thus, (𝅘𝅥𝅳), are the shortest.

CHAPTER IX.

RELATIVE VALUE OF NOTES.

64. Two half note tones are equal in length or value to one whole note tone. Two quarter note tones are equal to one half note tone. Two eighth note tones are equal to one quarter note tone. Two sixteenth note tones are equal to one eighth note tone. Two thirty-second note tones are equal to one sixteenth note tone. Two sixty-fourth note tones are equal to one thirty-second note tone. Two one hundred twenty-eighth note tones are equal to one sixty-fourth note tone.[1]

Ill.

The value of a whole note is reduced one half by adding a stem, which changes it to a half note. Close the head of a half note and we have a quarter note. Add a flag to the quarter note and we have an eighth note. Add a flag to the eighth note and we have a sixteenth note. Add a flag to the sixteenth note and we have a thirty-second note. Add a flag to the thirty-second note and we have a sixty-fourth note. Add a fifth flag to the sixty-fourth note, and a one hundred and twenty-eighth note is the result. Each of these processes serves to reduce the value of the note, or shorten the duration of time which it represents one half.

CHAPTER X.

RESTS.

65. What are rests?

Ans. Marks or characters that indicate silence for a certain length of time during the performance of a piece of music.

Rests came into use with the measured music.

[1] The exact date of the invention of measured music, that is, music composed of notes of a proportionate value, is not known, but the earliest treatise on that subject was written in the latter half of the eleventh century, which gives grounds for the assumption that it had been known some time before.

66. How many kinds of rests are there in common use, and what are their names?

Ans. Nine; as many as there are notes in use; also some to indicate silence for two or more measures.

67. Describe the whole or measure rest.

Ans. A block below the line, thus, (▬), and is equal to a whole note tone or a whole measure, usually regardless of how much the measure contains; hence the name, "whole or measure rest."

68. What is a half rest?

Ans. A block above the line, thus, (▬), and is equal only to a half note.

69. Decribe the quarter rest.

Ans. It is a stem with a flag to the right, thus, (𝄽). Also written thus, (𝄾). The latter is usually the form in which the quarter rest is now written — owing to a confusion that almost invariably arises with the beginner (and frequently with others) as to which is the quarter and which the eighth rest, the similarity between them being great.

70. Describe the eighth rest.

Ans. It is a stem with one flag to the left, thus, (𝄿).

71. Describe the sixteenth rest.

Ans. It is a stem with two flags to the left, thus, (𝅀).

72. Describe the thirty-second rest.

Ans. It is a stem with three flags to the left, thus, (𝅁).

73. Describe the sixty-fourth rest.

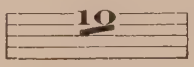
Ans. It is a stem with four flags to the left, thus, (𝅂).

74. Does not an inconsistency exist in the rate of valuing the whole and the half rests?

Ans. There does; the whole rest usually has the time of a whole note, or of an entire measure regardless of how much the measure contains, while the half rest has only the time of a half note. (The power of the former should be more limited or that of the latter more extended. The writer however ventures the opinion that it would be better for the whole rest to have a more limited value and thereby avoid the confusion that would naturally follow an attempt to give more value to the half rest, since this would necessarily lead to a change in the valuing of each of the smaller rests. To remedy this inconsistency will doubtless be one of the next steps towards perfecting musical notation.)

Obs. 4. There is also the dotted whole rest (▬·) used by Wagner and by other great masters.

The longest rest, however, in present but not common use is the double whole rest, thus, which indicates silence for two measures.

Rest for many measures is indicated by a diagonal stroke on the staff and figures placed above it. Written thus,  denotes rest for ten measures.

CHAPTER XI.

THE DOT AND ITS VARIOUS USES.

75. What are the various uses of the dot?

Ans. It is used to lengthen or to shorten notes or tones, and in various other ways, as "repeats." (Treated again in Chapter XIX.)

76. How is the dot used to lengthen a tone?

Ans. It is placed just after the note whose tone is to be lengthened, thus, (𝅗𝅥·).

77. What is the value of a dot when placed after a note?

Ans. It is equal to half the value of the note after which it is placed.

Obs. 5. The value of the dot is greater or less according to the long or short tone indicated by the note; e. g., a dot after a whole note, thus, (𝅗𝅥·), is equal to one half or two quarter notes; therefore the whole note being equal to four quarter note tones, and the dot equal to two quarter note tones, the whole note and dot combined equal six quarter notes; thus, .

78. Is there a separate stroke on the instrument for the dot?

Ans. No. The note is struck and held for its own length of time, and also for that of the dot.

79. What is the value of the dot after a half note?

Ans. It is equal to one quarter note. The half note and dot combined are equal to three quarter note tones, thus, .

80. What is the value of the dot when placed after a quarter note?

Ans. It is equal to one eighth note. The quarter note and dot combined are equal to three eighth note tones, thus,

81. What is the value of a dot after an eighth note?

Ans. It is equal to one sixteenth note. The eighth note and dot combined are equal to three sixteenth notes, thus,

82. What is the value of a dot after a sixteenth note?

Ans. It is equal to one thirty-second note. The note and dot combined are equal to three thirty-second note tones, thus,

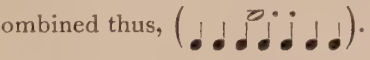
83. What is the value of a dot after a thirty-second note?

Ans. It is equal to one sixty-fourth note. The thirty-second note and the dot combined are equal to three sixty-fourth notes, thus,

A sixty-fourth note with a dot after it is equal to three one hundred twenty-eighth notes, thus,

84. What is the value of the second dot after the note?

Ans. A second dot, thus, (𝅗𝅥••), is equal to half the value of the first dot. A second dot after a whole note makes the whole note and two dots equal to seven quarter notes. The whole note being equal to four quarter notes, the first dot is equal to two quarters, and the second dot equal to one quarter.

Combined thus,  .

85. Have dots after a rest the same value as dots after a note?

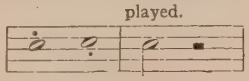
Ans. They have. They lengthen the silence at the same rate.

86. How does a dot shorten a tone?

Ans. By placing it either above or below the note.

87. How much does a dot so placed shorten a tone?

Ans. A round dot shortens the tone one half; e. g., a whole note with a round dot above or below it, thus, (𝅝 𝅗𝅥), is played as a half note tone. One half of the whole note's time is tone and the other half silence, thus,



A half note with a round dot above or below it is played thus,

A quarter note with a round dot above or below it is played thus,

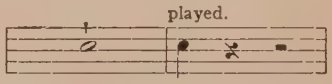
88. When a note has a round dot above or below it as above, what is it called?

Ans. Semi-staccato.

89. A long dot placed above or below a note reduces the length of tone how much, and what is this reduction called?

Ans. It reduces the tone to one fourth of its original length, and is called staccato.

A whole note with staccato, thus,



90. How are staccato notes played?

Ans. In a very short and distinct manner.

91. When are dots used as repeats?

Ans. When placed at either the end or the beginning of a staff, or certain parts of music; also in another way that will be noticed in Chapter XIX.

CHAPTER XII.

TIE, SLUR, AND HOLD OR PAUSE.

92. What is a tie?

Ans. It is a curved line placed above or below two notes on the same degree of the staff, thus,

A tie may also connect two tones of the same pitch, though they be on different degrees of the staff, thus,

93. What is its use?

Ans. It is used to tie or bind two notes together, indicating that only the first is to be struck, but held for its entire length of time and for the time of the note to which it is tied. If the curved line is placed above two notes with dots above them, thus,

, it is not a tie but only a portamento mark. If the second note only is dotted, thus, the effect is that of a slur.

94. What is a slur?

Ans. It is a curved line placed above or below two or more notes of different pitches, thus, and in very slow time indicates that they must be played in a smooth and connected style. In rapid tempo, however, when only two notes are thus connected, the first is closely held its full time, and the second is played *softer* than the first, and held only *half* its time, as if printed "semi-staccato."

95. What is a hold or pause?

Ans. It is a curved line with a dot under it placed above or below a note or rest, thus, , and indicates that the note is to be held its full length of time and as much longer as the taste of the player dictates.

96. When is it called a hold?

Ans. When it is placed above or below a note.

97. When is it called a pause?

Ans. When it is placed above or below a rest.

98. Why is this character called a hold when it is above or below a note, and a pause when it is above or below a rest?

Ans. It is called a hold when placed above or below a note, because a tone can be held or prolonged; and is called a pause when placed above or below a rest, because a rest means silence which of course cannot be held.

CHAPTER XIII.

MEASURES.

99. What are measures?

Ans. Measures are divisions of the staff and groups of accented and unaccented beats or pulses.

100. How do we divide the staff into measures?

Ans. By means of small lines called bars drawn across the staff, thus,

101. How are beats or pulses formed into measures?

Ans. By placing a certain number of notes, representing both accented and unaccented beats, in each measure division of the staff.

102. Why is the staff divided into measures?

Ans. That musical composition may be more easily read and performed.

CHAPTER XIV.

METER OR TIME.

103. What is the division of measure into regular parts called in music?

Ans. Meter.

104. What are the parts called?

Ans. Metrical divisions.

105. Why are the two figures placed on a staff at the beginning of a piece of music?

Ans. To indicate how many metrical parts are to be in each measure throughout the piece or movement, and also to indicate the length of each beat or part.

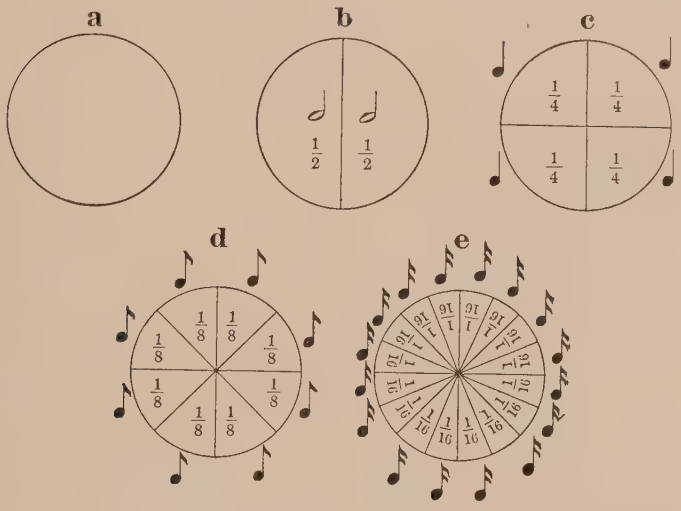
106. Which figure points out how many beats must be in each measure, and which the duration of each beat?

Ans. The upper figure denotes how many beats are in each measure, and the lower figure the kind of note which represents the duration of each beat.

Obs. 6. The words "beat," "pulse," or "count" each or all are used when speaking of a number of metrical divisions, because in music they have the same meaning. The word "beat" is particularly applicable when the conductor or singing teacher measures the time regularly by strokes of his baton in the air. He beats and counts the time. "Count" is used because the metrical divisions are to be regularly counted. Each count has a certain length of time. "Pulse" is taken from the fact that the human system when in normal condition has a regular and decided beating of the pulse; and a musical composition to be intelligible and correct must have a systematic pulsation or regularity of counts.

107. Why do we understand that the lower figures, for example 2, 4, 8, etc., decide the length of each count in every measure?

Ans. Because a whole note in modern music is an allotted unit of time, and when divided as follows, allows the figures to represent the different parts into which the whole note has been divided; thus consider the circle at A a whole note. At B we see the circle divided into two equal parts which we call halves. A figure 2 represents the tone that is half as long as the whole note tone; therefore when a half note is to be the beat note, the composer indicates it by placing that figure as the lower of the two figures at the beginning.



At C the circle is divided into four equal parts, each part being one-fourth or one-quarter of the whole. The figure 4 represents the tone that is one-fourth as long as the whole note; therefore when a quarter note tone is to be the beat note, a figure 4 is the lower figure at the beginning. At D the circle is divided into eight equal parts; therefore each part is one-eighth as long as the whole note tone, and if the beat note is to be an eighth note tone, a figure 8 is the lower figure to represent the eighth note. If the circle is divided into sixteen equal parts as at E, each part is one-sixteenth of the entire circle, and shows that sixteen sixteenth notes or parts are contained in the whole note or circle. If a sixteenth note is to be a beat note, the figures making sixteen (16) are placed as the lower ones of the "time figures."

CHAPTER XV.

DIFFERENT KINDS OF TIME.

108. How many kinds of time are there?[1]

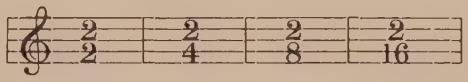
Ans. Six.

109. What are they?

Ans. Double, simple triple, quadruple or common, sextuple or compound double, compound triple, and compound common time.

110. What is double time?

Ans. Two beats in each measure, known by the upper figure on staff being 2; also by the barred semi-circle, thus, (𝄵). The latter, however, has reference particularly to *two half* notes in a measure.

Ill. 

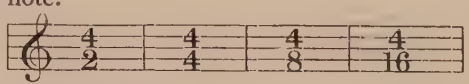
111. What is simple triple time?

Ans. Three beats in each measure, known by the upper figure on the staff being 3.

Ill.

112. What is quadruple time?[2]

Ans. Four beats in each measure, known by the upper figure on the staff being 4; also by the unbarred semicircle, thus, (𝄴), instead of figures. *Common* time refers particularly to *four quarter* notes in a measure, while *quadruple* time refers to *no particular kind* of beat note.

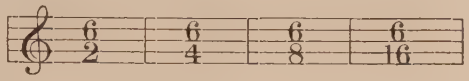
Ill. 

[1] The present time signatures descend to us from the forms of the middle ages. The number 3 was regarded as representing the Blessed Trinity, therefore triple time was called Perfect, and was represented by a circle (◯), sometimes with a Point of Perfection in its center, thus, (⊙).

[2] Even forms, which include double and quadruple and their compounds, were called Imperfect and represented by a semi-circle (☾).

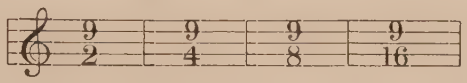
113. What is sextuple or compound double time?

Ans. Six beats in each measure, known by the upper figure being 6.

Ill. 

114. What is compound triple time?

Ans. Nine beats in each measure, known by the upper figure being 9.

Ill. 

115. What is compound quadruple time?

Ans. Twelve beats in each measure, known by the upper figure being 12.

Ill.

116. Why is sextuple or compound double time so called?

Ans. Because a measure of this kind contains as many parts as three measures of double time, thus, $2+2+2=6$.

117. Why is compound triple time so called?

Ans. Because it contains as many parts as three measures of simple triple time, thus, $3+3+3=9$.

118. Why is compound quadruple time so called?

Ans. A measure of this kind contains as many parts as three measures of quadruple time, thus, $4+4+4=12$. There is also quintuple time, consisting of five beats to the measure; its signature is 5 (upper figure), and its compound would be fifteen. This species of time is not in common use. All simple times have their compounds. All up to six are simple; six and all above it are compound.

CHAPTER XVI.

ACCENT.

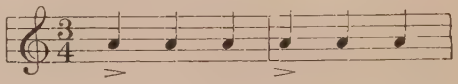
119. What is accent?

Ans. Accent is giving one beat or part more emphasis than the others. Accent marks are these, (> ^). The latter, however, is more used to indicate the "clinging touch."

120. Which part of double time is accented?

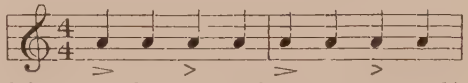
Ans. The first. Ill.

121. Which part of triple time is accented?

Ans. The first. Ill. 

122. Which parts of quadruple time are accented?

Ans. The first and third. The second accent is lighter than the first. (Notice size of accent marks.)

Ill. 

123. Which parts of sextuple time are accented?

Ans. The first always, and the fourth usually, though composers sometimes place the secondary accent differently.

Ill.

124. Which parts of compound triple time are accented?

Ans. The first, fourth, and seventh.

Ill.

125. Which parts of compound quadruple time are accented?

Ans. The first, fourth, seventh, and tenth.

Ill.

Quintuple time is a combination of simple double and simple triple times, therefore none but the first accent — which is on the first part — can be exactly placed.

126. What is syncopation?

Ans. A note entering on an unaccented part of the measure, and continuing into the next accented part, or the unaccented part receiving the accent which is given regularly to another part.

Ill.

The accent to be given *regularly* to the *first* part in triple time is *temporarily given* to an *unaccented* beat of the measure.

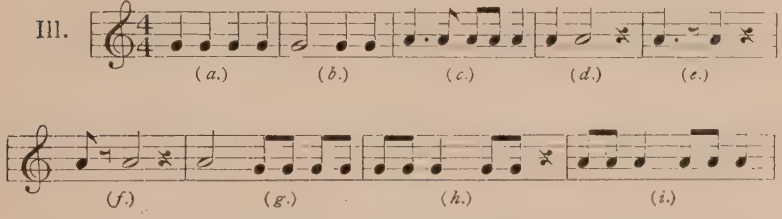
CHAPTER XVII.

RHYTHM.

127. What is rhythm?

Ans. It will be seen in reviewing the chapter on meter, that the metrical divisions of a measure follow each other with mathematical regularity; yet it is not best that the succession of sounds should always come in the metrical division, as that would become monotonous. But one sound may continue through one or more metrical parts, or more than one sound may be given out during one metrical part, or a rest of any kind may appear. For example: If a composition has four quarter note counts in each measure, one measure may contain four separate quarter notes as at *a* in the following:

Ill.



while at *b* there is one half note and two quarter notes. At *c* one dotted quarter note and three eighths are followed by a quarter note. At each, *a*, *b*, *c*, *d*, *e*, *f*, *g*, *h*, and *i*, quarter notes, half notes, eighths, sixteenths, and rests are brought in to make up the required number of quarter note beats in each measure. It will be borne in mind that a quarter note in this example is a metrical or regular division of each measure. It is now seen that while meter means the metrical or regular divisions of a measure, rhythm is the variety of means used to form each of these divisions, or the various ways of filling up its measures; yet each measure has the same number of beats.

(Study the above examples carefully.)

CHAPTER XVIII.

ABBREVIATIONS.

128. Why are whole notes frequently written with one, two, or more dashes above or below them?

Ans. To economize in space, and to indicate the kind of parts into which the note is divided. If there is one dash it represents an eighth note. The whole note so written must be struck as many times in succession as there are eighth notes contained in a whole note. If there are two dashes the note is to be struck as many times in succession as there are sixteenth notes contained in a whole note.

Ill.

129. Why are half notes and dotted quarter notes often seen with one or more flags passing through the stem, thus, ?

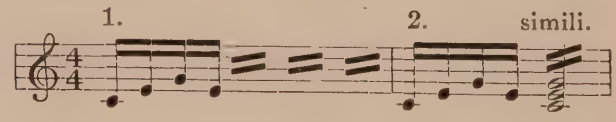
Ans. For the same reason as above. The notes are to be struck as many times in succession as there are eighth or sixteenth notes contained in the half and quarter notes.

Ill.

130. When measures are arranged as follows, what is the meaning of the diagonal stroke on the staff?

Ill.

Ans. It means that the preceding group, or groups of notes or measures, must be repeated just as they are written. It also indicates that a passage, provided it is not more than two measures, is to be repeated.

Ill. 

Double diagonal strokes are used to indicate the number of times the group is to be repeated; strokes appear as many times as the group is to be repeated.

Sometimes the group of notes is followed by a chord formed of the same notes, as at Ill. 2, but are accompanied by the word "simili" (like) or "sigue" (follows) to indicate that they are to be played exactly as the preceding group: *not* simultaneously.

Obs. 7. For the use of the *dot* alone as an *abbreviation* in repeating, see Chapter XI.

"Bis" meaning twice and "ter" three times are each frequently placed above measures to indicate a repetition of the measure.

131. What does *accelerando* or *accel.* indicate?

Ans. A gradual increase in speed of playing.

132. What is the meaning of *rallentando* or *rall.; ritardando* or *ritard?*

Ans. To play gradually slower.

133. What is the meaning of *crescendo* or *cres.*, or this character ?

Ans. To play gradually louder.

134. What is the meaning of *decrescendo*, *dec.*, or *decres.*, *diminuendo* or *dim.*, or this character ?

Ans. To play gradually softer.

135. What is the meaning of *dolce* or *dol.*?

Ans. To play softly and sweetly.

136. What does *f* stand for?

Ans. *Forte*, which means loud.

137. What does *ff* stand for?

Ans. *Fortissimo*, or very loud.

138. What does *p* stand for?

Ans. *Piano*, which means soft.

139. What does *pp* stand for?

Ans. *Pianissimo*, or very soft.

140. What does *m* stand for?

Ans. *Mezzo*, meaning medium.

141. What does *mf* stand for?

Ans. *Mezzo forte*, meaning medium loud.

142. What does *mp* stand for?

Ans. *Mezzo piano*, meaning medium soft.

143. What does *maestoso* mean?

Ans. In a masterly manner. (See Gibbon's pocket pronouncing Dictionary of Musical Terms.)

CHAPTER XIX.

INTERVALS.

144. What is an interval?

Ans. It is the effect of producing two tones at or near the same time, with the name of the difference of their pitch mentioned.

145. How many grand classes of intervals are there, and what are they?

Ans. Two. Simple and compound.

146. What are simple intervals?

Ans. All intervals smaller than an octave are simple.

147. What are compound intervals?

Ans. All intervals greater than an octave are compound.

148. When is an interval said to be inverted?

Ans. When the lower note is placed one or more octaves higher, or the upper note placed one or more octaves lower. (When the higher note is placed one or more octaves higher still, or when the lower note is placed one or more octaves lower, the interval is said to be replicated.)

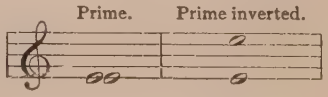
149. How many intervals are in common use, and what are they?

Ans. Nine; viz., primes, seconds, thirds, fourths, fifths, sixths, sevenths, eighths or octaves, and ninths.

150. What is a prime?

Ans. It is an interval occupying one degree of the staff. (See Chapter V.) Inverted it becomes an octave.

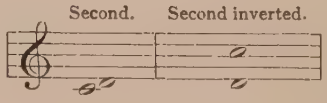
Ill.



151. What is a second?

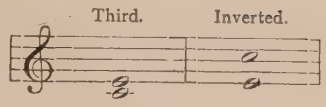
Ans. An interval occupying two contiguous degrees of the staff. Inverted it becomes a seventh.

Ill.



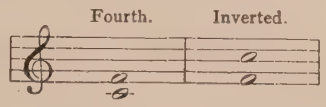
152. What is a third?

Ans. An interval occupying three degrees of the staff. Inverted it becomes a sixth.

Ill. 

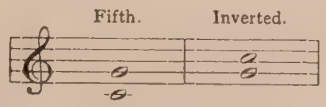
153. What is a fourth?

Ans. An interval occupying four degrees of the staff. Inverted it becomes a fifth.

Ill. 

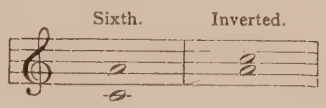
154. What is a fifth?

Ans. An interval occupying five degrees of the staff. Inverted it becomes a fourth.

Ill. 

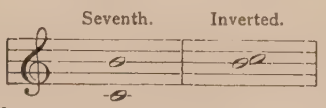
155. What is a sixth?

Ans. An interval occupying six degrees of the staff. Inverted it becomes a third.

Ill. 

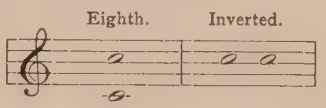
156. What is a seventh?

Ans. An interval occupying seven degrees of the staff. Inverted it becomes a second.

Ill. 

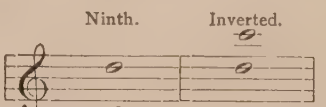
157. What is an eighth or octave?

Ans. An interval occupying eight degrees of the staff. Inverted it becomes a prime.

Ill. 

158. What is a ninth?

Ans. An interval occupying nine degrees of the staff. Inverted it becomes a seventh.

Ill. 

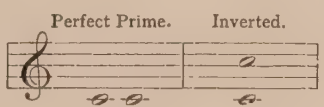
159. How many kinds of primes are there?

Ans. Two: viz., perfect and augmented.

Obs. 8. It is well to bear in mind that what is termed a "step" is also used, and is the size of a major second. On either the piano or organ key board it is the distance from one white key to the next, with only one black key between: C up to D. One black key, C♯, is between them. A *half* step is the size of a *minor* second: C up to C♯, or C up to D♭.

160. What is a perfect prime?

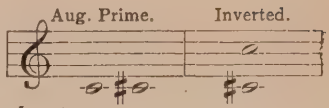
Ans. An interval occupying one degree of the staff, and having no step or half step; unisons of sound. Inverted it becomes a perfect octave.

Ill. 

161. What is an augmented prime?

Ans. An augmented prime occupies one degree of the staff, but is a half step in size: C up to C♯. Inverted it becomes a diminished octave.

Ill.



162. How many kinds of seconds are there?

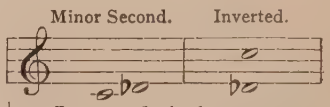
Ans. Three: viz., minor, major, and augmented.

Obs. 9. It matters not how large or small the second, it is still a second although each has a different name owing to its size. Sharps and flats make the difference in sound of all intervals of the same name.

163. What is a minor second?

Ans. It is the smallest of all seconds, and is only a half step in size, though it occupies two degrees of the staff: C up to D♭. Inverted it becomes a major seventh.

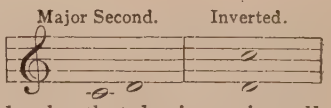
Ill.



164. What is a major second?

Ans. It is one whose size is one step: C up to D. Inverted it becomes a minor seventh. It is well to bear in mind the old but good rule, that by inversion all major intervals become minor, and all minor intervals become major.

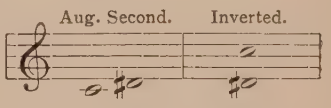
Ill.



165. What is an augmented second?

Ans. It is one whose size is one step and a half: C up to D♯. Inverted it becomes a diminished seventh. Notice that in the examples given of these seconds it is always C up to D. First C up to D♭—a half step; next C up to D—a step; next C up to D♯—a step and a half. The D is flat in one case, natural in another, and sharped in another; yet it is D all the while. Only two letters are used which represent two degrees of the staff. Observe that each second is just a half step larger than the preceding as you proceed upward. The same is true of thirds, fourths, and all intervals.

Ill.



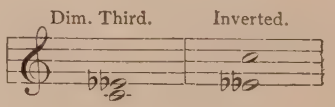
166. How many kinds of thirds are there?

Ans. Four: viz., diminished, minor, major, and augmented.

167. What is a diminished third?

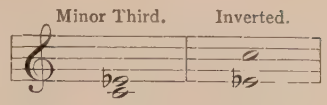
Ans. It is one whose size is one step: C up to E double flat. Inverted it becomes an augmented sixth.

Ill.



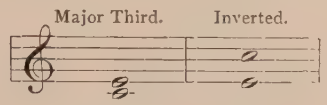
168. What is a minor third?

Ans. It is one whose size is one step and a half. C up to E♭. Inverted it becomes a major sixth.

Ill. 

169. What is a major third?

Ans. It is one whose size is two steps: C up to E. Inverted it becomes a minor sixth.

Ill. 

170. What is an augmented third?

Ans. It is the largest third, and is composed of two steps and a half step: C up to E♯ The augmented third admits of no inversion except in the occasional diminished sixth. Some theorists deny its existence. Nevertheless, the augmented third is frequently seen in the compositions of many classic writers; therefore it must not be ignored.

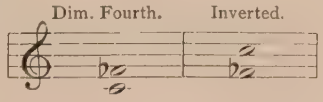
Ill.

171. How many kinds of fourths are there?

Ans. Three: viz., diminished, perfect, and augmented.

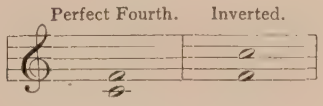
172. What is a diminished fourth?

Ans. It is one whose size is one step and two half steps. C up to F♭. Inverted it becomes an augmented fifth.

Ill. 

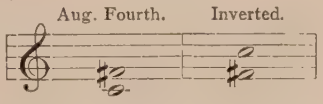
173. What is a perfect fourth?

Ans. It is one whose size is two steps and one half: C up to F. Inverted it becomes a perfect fifth.

Ill 

174. What is an augmented fourth?

Ans. It is one whose size is three steps: C up to F♯. Inverted it becomes a diminished fifth.

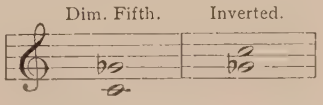
Ill. 

175. How many kinds of fifths are there?

Ans. Three: viz., diminished, perfect, and augmented.

176. What is a diminished fifth?

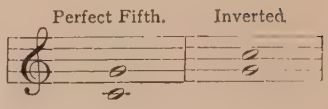
Ans. It is one whose size is two steps and two half steps: C up to G♭. Inverted it becomes an augmented fourth.

Ill. 

177. What is a perfect fifth?

Ans. It is one whose size is three steps and one half step: C up to G. Inverted it becomes a perfect fourth.

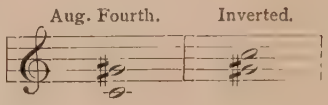
Ill.



178. What is an augmented fifth?

Ans. It is is one whose size is four steps: C up to G♯. Inverted it becomes a diminished fourth.

Ill.



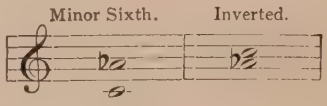
179. How many kinds of sixths are there?

Ans. Three: viz., minor, major, and augmented.

180. What is a minor sixth?

Ans. It is one whose size is three steps and two half steps: C up to A♭. Inverted it becomes a major third.

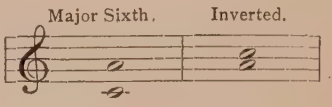
Ill.



181. What is a major sixth?

Ans. It is one whose size is four steps and a half step: C up to A. Inverted it becomes a minor third.

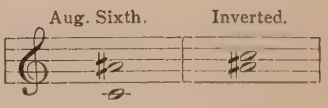
Ill.



182. What is an augmented sixth?

Ans. It is one whose size is five steps: C up to A♯. Inverted it becomes a diminished third.

Ill.



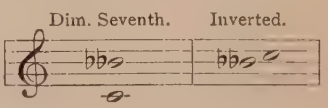
183. How many kinds of sevenths are there?

Ans. Three: viz., diminished, minor, and major.

184. What is a diminished seventh?

Ans. It is one whose size is three steps and three half steps: C up to B double flat. Inverted it becomes an augmented second.

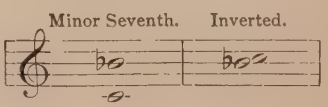
Ill.



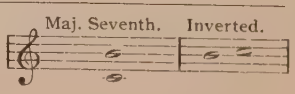
185. What is a minor seventh?

Ans. It is one whose size is four steps and two half steps: C up to B♭. Inverted it becomes a major second.

Ill.



A major seventh is one whose size is five steps and one half step: C up to B. Inverted it becomes a minor second.

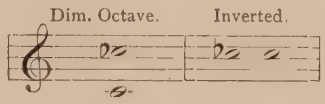


186. How many kinds of eighths or octaves are there?

Ans. Three: viz., diminished, perfect, and augmented.

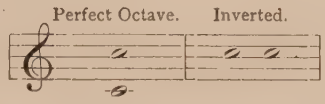
187. What is a diminished octave?

Ans. It is an octave whose size is four steps and three half steps: C up to C♭. Inverted it becomes an augmented prime.

Ill. 

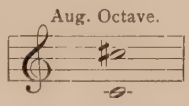
188. What is a perfect octave?

Ans. It is one whose size is five steps and two half steps: C to C. Inverted it becomes a perfect prime.

Ill. 

189. What is an augmented octave?

Ans. It is one whose size is five steps and three half steps: C to C♯ an octave above. This octave admits of no inversion.

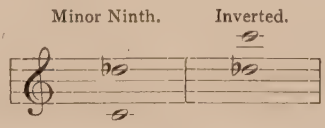
Ill. 

190. How many kinds of ninths are there?

Ans. Two: viz., major and minor.

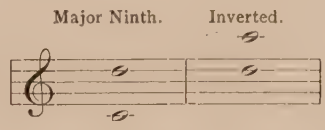
191. What is a minor ninth?

Ans. It is a ninth whose size is five steps and three half steps: C to D♭ an octave above. Inverted it becomes a major seventh.

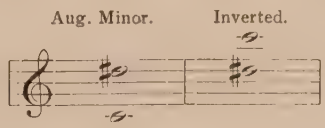
Ill. 

192. What is a major ninth?

Ans. It is one whose size is six steps and two half steps: C to D an octave above. Inverted it becomes a minor seventh.

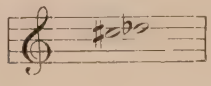
Ill. 

There is such an interval as the augmented ninth, but it is not considered to exist as an harmonic interval. Its size would be seven and a half steps: C to D♯, an eighth above. Inverted it would become a diminished seventh.

Ill. 

193. Is there not another interval smaller than any mentioned in the foregoing?

Ans. Yes, and it is called an enharmonic interval: C♯ up to D♭.

Ill. 

Obs. 10. It will be noticed that while the two notes in the foregoing example occupy two contiguous degrees of the staff, the sharp raises the tone of C a semitone, or half step, and the flat lowers the tone of D a half step, causing the two tones or pitches to meet and blend in such a manner that the interval cannot be harmonized, neither can it be named further than an "enharmonic interval." If both notes are struck on the piano or organ, the same key is struck for both. C♯ is the first black key to the right of C, and D♭ is the first black key to the left of D; the same key. Remember that building means beginning on any degree of the staff and going up a second or a third, or any given interval, to place the next note. On the staff, from one line to the next line is a third, and from one space to the next space is a third, while from one line to the next space is a second, or from one space to the next line is a second.

194. Build minor, major, and augmented seconds on each degree of the staff.

195. Build diminished minor, major, and augmented thirds on each degree of the staff.

196. Build diminished, perfect, and augmented fourths on each degree of the staff.

197. Build diminished, perfect, and augmented fifths on each degree of the staff.

198. Build minor, major, and augmented sixths on each degree of the staff.

199. Build diminished, minor, and major sevenths on each degree of the staff.

200. Build diminished, perfect, and augmented octaves on each degree of the staff.

201. Build minor, major, and augmented ninths on each degree of the staff.

CHAPTER XX.

SCALES.

202. What is a scale?

Ans. A scale is a family of pitches or tones following each other in a certain order.

203. What scales were formerly in use?

Ans. Greek; also called ecclesiastical scales.

204. How many were there, and what were their names?

Ans. Six: viz., Lydian, Mixo Lydian, Ionian, Dorian, Phrygian, and Aeolian.

205. How many of these are now in use?

Ans. Two: viz., the Ionian and the Aeolian. The first named is our present major scale, and the last named, with the exception of the sharped seventh, is our harmonic minor scale.

206. How many grand divisions of the scale are there now in use?

Ans. Two: viz., diatonic and chromatic.

207. What is a diatonic scale?

Ans. It is a scale which is composed of major and minor seconds. In one class of diatonic scales an augmented second is also used.

208. What is a chromatic scale?

Ans. It is composed entirely of half steps, yet some of these half steps are augmented primes, and some are minor seconds. There are five augmented primes: viz., C up to C♯, D up to D♯, F up to F♯, G up to G♯, A up to A♯; and seven minor seconds: viz., C♯ up to D, D♯ up to E, E up to F, F♯ up to G, G♯ up to A, A♯ up to B, and B up to C.

Chromatic Scale.

Ill.

209. How many divisions of the diatonic scale are there?

Ans. Two: viz., minor and major.

210. What is a major scale?

Ans. It is a scale which contains more major seconds than minor. It has three major thirds, based respectively on the first, fourth, and fifth members of the scale. C, F, and G, in the scale of C, are the notes on which to build these thirds. Thus C up to E, F up to A, and G up to B are major thirds.

211. What is the formula for the major scale?

Ans. It is as follows: major second, major second, minor second, major second, major second, major second, minor second; or one step, one step, half step, one step, one step, one step, half step; which gives the major scale five major seconds and two minor seconds, — five steps and two half steps.

212. Form a major scale on C.

Ans. C up to D, major second; D up to E, major second; E up to F, minor second; F up to G, major second; G up to A, major second; A up to B, major second; B up to C, minor second.

In the same way form a major scale from each staff pitch. After leaving C scale, every scale has one or more sharps or flats.

213. How many sharps has the scale of G?

Ans. One sharp, the seventh member, F.

214. How many sharps has the scale of D, and what are they?

Ans. Two: F♯ and C♯.

215. Why has the scale of D these sharps instead of others?

Ans. Because F♯ from the scale of G is retained, and C♯, the sharp seventh of the scale of D, is added. F♯ gives the first major third, and C♯, while it gives the last minor second, also forms the last major third in the scale.

216. How many sharps has the scale of A, and what are they?

Ans. Three: F♯, C♯, and G♯.

217. Why has the scale of A these sharps instead of others?

Ans. F♯ and C♯ are retained from the preceding scales (G and D), and G♯ the seventh of A is added.

218. How many sharps has the scale of E, and what are they?

Ans. Four: F♯, C♯, G♯, and D♯. F♯, C♯, and G♯ are the sharp sevenths of the preceding scales (G, D, and A) retained, and D sharp is the sharp seventh ot the scale of E added.

219. How many sharps has the scale of B, and what are they?

Ans. Five: F♯, C♯, G♯, D♯, and A♯. F♯, C♯, G♯, and D♯, are the sharp sevenths retained from the preceding scales (G, D, A, and E), and A♯ is the sharp seventh of the scale of B added.

220. How many sharps has the scale of F♯, and what are they?

Ans. Six: F♯, C♯, G♯, D♯, A♯, and E♯. The first five sharps are the sharp sevenths retained from the preceding scales (G, D, A, E, and B), and E♯, the sharp seventh of the scale of F♯ added. The scale of C♯ has seven sharps: F♯, C♯, G♯, D♯, A♯, E♯, and B♯.

221. Why do the scales C, G, D, etc., bear these names?

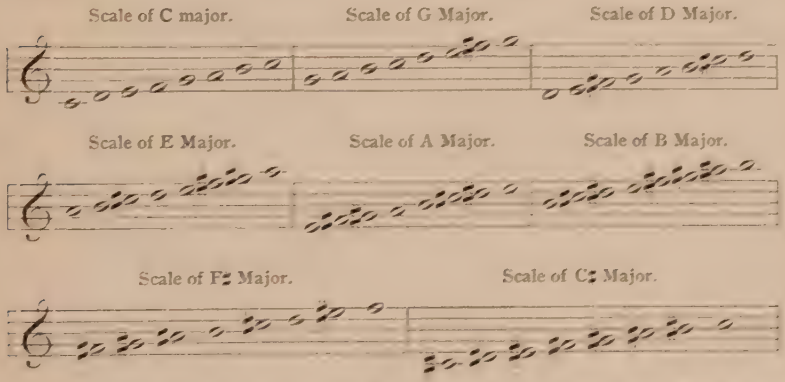
Ans. Because they begin on the pitches of the staff which bear the same names.

In scales containing sharps, these especial sharps are placed there to form the large and small intervals, i. e., minor and ma-

jor,—and in *some*-augmented seconds required in the formula for major and minor scales. Ill. In the scale of D begin on D; from D to E is a major second. Another major second must follow this one, and to get it we go from E to F♯; thus we get the two major seconds to follow each other. Next must come a minor second, and to get it we go from F♯ to G. For the three successive major seconds, we first go from G to A, next from A to B, and next from B to C♯. From C♯ to D we get the last minor second called for in the formula.

222. Could flats be used instead of these sharps?

Ans. They could not. Every diatonic scale must have the intervals of two major seconds following each other. Therefore in the scale of D, if F were flatted instead of raised by the sharp, both of the major seconds required in the first of the scale would be entirely destroyed. F♭ would make the tone of F♯ a whole step lower, and there would be no major seconds, or seconds of any kind in the places for them, but, instead, would be diminished thirds, and no scale now in existence contains such a third. The entire scale would be destroyed, and only a mass of confusion remain.


Scale of C major.
Scale of G Major.
Scale of D Major.
Scale of E Major.
Scale of A Major.
Scale of B Major.
Scale of F♯ Major.
Scale of C♯ Major.

223. In scales that have flats, which scale has one flat and what is it?

Ans. The scale of F has one flat: viz., B♭.

224. Why has this scale B♭ instead of another flat?

Ans. Because B♭ is its fourth member lowered or flatted, and its use forms the major and minor seconds required by the formula of the major scale.

225. Which scale has two flats, and what are they?

Ans. The scale of B♭ has two flats: viz., B♭ and E♭.

226. Why has the scale of B♭ these flats instead of others?

Ans. B♭ is the flat fourth retained from the scale of F, and is also the beginning of the scale of B♭; and E♭ is the flat fourth of the scale of B♭.

227. Which scale has three flats, and what are they?

Ans. The scale of E♭ has three flats: viz., B♭, E♭, and A♭. B♭ is the flat fourth retained from the scale of F. E♭ is the beginning of the scale of E♭, and A♭ is the flat fourth of the scale of E♭ added.

228. Which scale has four flats, and what are they?

Ans. The scale of A♭ has four flats: viz., B♭, E♭, A♭, and D♭. B♭ and E♭ are the flat fourths retained from the scales of F and B♭. A♭ is the beginning of the scale of A♭, and D♭ is the flat fourth of the scale of A♭ added.

229. Which scale has five flats, and what are they?

Ans. The scale of D♭ has five flats: viz., B♭, E♭, A♭, D♭, and G♭. The first three flats are the flat fourths retained from the preceding scales. D♭ is the beginning of the scale of D♭, and G♭ is the flat fourth of the scale of D♭ added.

230. Which scale has six flats, and what are they?

Ans. The scale of G♭ has six flats: viz., B♭, E♭, A♭, D♭, G♭, and C♭. The first four flats are the flat fourths retained from the preceding scales. G♭ is the beginning of the scale of G♭, and C♭ is the flat fourth of the scale of G♭ added.

231. Is there not a scale of C♭?

Ans. Yes. It has all the preceding flats, and the flat fourth of its own scale added.

232. Why are these flats placed in the scales?

Ans. To form the large and small intervals, i. e., major and minor seconds, required by the formula of the major and minor scales which contain flats; e. g., in the scale of F there is B♭. Begin on F. F to G, major second, G to A, major second, A to B♭, minor second. B♭ to C, major second, C to D, major second, D to E, major second, and E to F, minor second.

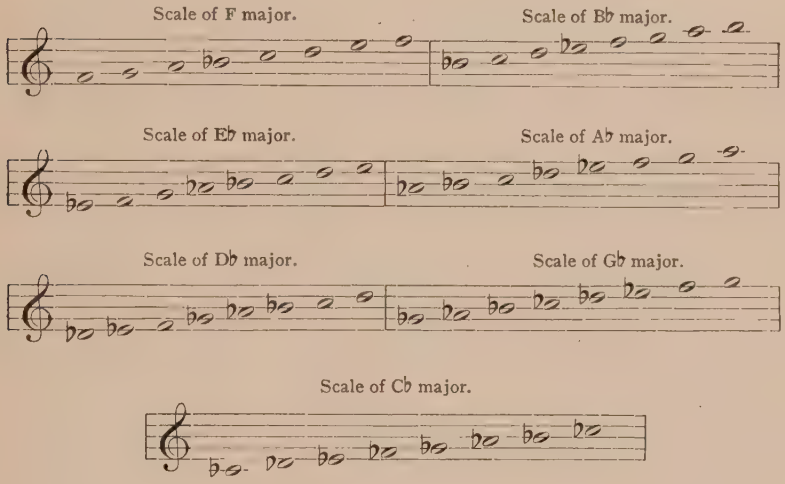
233. Could sharps be used instead of flats?

Ans. They could not, for the same reason as before mentioned in sharps. The same rule for the major diatonic scale is positive in its call for two major seconds to follow each other, and

a minor second to follow those. If in the scale of F, for example, we sharp the B instead of flat it, the tone is raised a whole step. The minor second required by the formula at this point is destroyed, and instead is an augmented second. The remainder of the scale is consequently disarranged, and no scale whatever exists. Only another mass of confusion remains.

234. What would be the result of such confusion?

Ans. Keys are dependent on scales; musical compositions of all grades from the simplest to the most elaborate styles are dependent on keys, and are therefore dependent on scales. If the scales are torn to pieces, the whole tonal system is torn up, and in consequence the entire structure of the science of music is destroyed and we have no music at all.



235. Why has the scale of C neither sharps nor flats?

Ans. Because, starting on the degree or pitch of the staff that it does, the intervals called for in the scale rule follow each other naturally, that is, the scale is formed perfectly and naturally without the aid of either sharps or flats. It is also called the natural scale.

236. Is there not another way of forming the diatonic major scale?

Ans. Yes, by the two Greek tetra-chords, each of which is called a perfect fourth. In the C scale, C up to F, and G up to C are the tetra-chords.

CHAPTER XXI.

SCALES. (Continued.)

237. What is a minor scale?

Ans. Its chief characteristic is, that its first third is minor; otherwise the intervals follow each other according to rules for the several minor scales.

238. How many kinds of minor scales are there?

Ans. Properly speaking only two: viz., harmonic and melodic.

239. What is the formula for the harmonic minor scale?

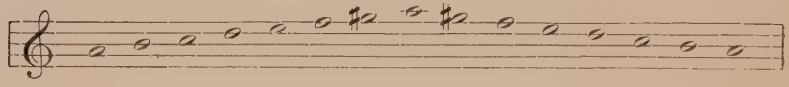
Ans. As follows: major second, minor second, major second, major second, minor second, augmented second, minor second; or one step, half step, one step, one step, half step, step and a half, half step.

240. Form the harmonic minor scale on A.

Ans. A to B (major second), B to C (minor second), C to D (major second), D to E (major second), E to F (minor second), F to G♯ (augmented second), G♯ to A (minor second).

It is now seen that the harmonic minor scale contains three major seconds, three minor seconds, and one augmented second.

Harmonic minor scale.



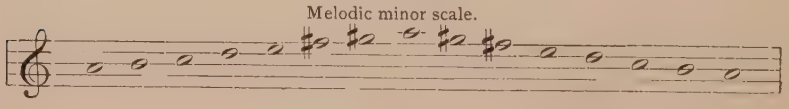
241. Which member of the scale is chromatically raised (sharped)?

Ans. The seventh member, G. G♯ forms the augmented second, and the augmented second gives G♯ to this scale.

242. What is the formula for the melodic minor scale?

Ans. It is the same as that for the harmonic minor scale, except that the harmonic minor has only its seventh member raised by a sharp, and the melodic minor has its seventh and sixth members raised. Ill. The harmonic minor scale on A has only G sharped, while the melodic has F and G sharped.

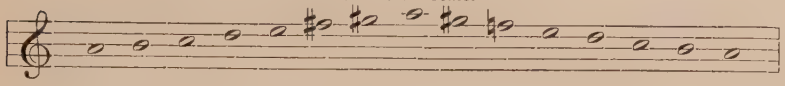
Melodic minor scale.



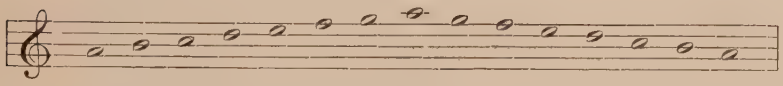
243. What other forms of the minor scale are there?

Ans. The mixed form, so called because it is the melodic in ascending, and the harmonic in descending, thus:

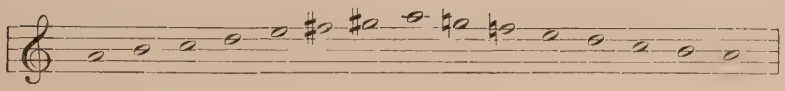
Mixed minor scale.



The natural or normal, thus:



And the one in which F and G are both sharped in ascending, and naturaled in descending, thus:



Obs. 11. It is to be noticed — in a review of scales — that the chromatic scale is formed of both primes and seconds, while any diatonic scale — whether minor or major — is formed of seconds only, although some of the seconds are minor, some major, and some augmented. The word diatonic means through the tone, or "through the proper tones to the key" without the use of chromatics. "Chromatic" has reference to the tones lying between the regular tones of a diatonic scale. Ill., between C and D is D♯, between D and E is D♯, and so on between all tones of the scale of C, except between E and F, and B and C; or between the third and fourth, and seventh and eighth members of any major diatonic scale, lie these small tones called chromatics.

CHAPTER XXII.

KEYS.

244. What is a key?

Ans. It is a family of pitches or tones which bear a certain fixed relation to each other.

245. What is a mode?

Ans. It is another name for a key.

246. From what does a key take its name?

Ans. From the first member of a scale.

247. How many classes of keys are there?

Ans. Two: viz., major and minor.

248. How many major keys are there?

Ans. Fifteen: viz., one natural key, C; seven which have sharps, and seven which have flats.

249. How do we know in what major key a piece of music is written?

Ans. By the number of flats or sharps, or the absence of both, at the beginning of the composition.

250. What are the groups of sharps or flats, or their absence, at the beginning of a piece of music called?

Ans. The signature.

251. On which side of the clef are they placed?

Ans. On the right.

252. What is the signature of the key of C?

Ans. The absence of both sharps and flats at the beginning of the piece of music. The *scale* of C has neither flats nor sharps.

253. What is the signature of the key of G?

Ans. One sharp, F♯.

254. Why F♯ instead of another?

Ans. Because the *scale* of G has only one sharp (F♯), its seventh member.

255. What is the signature of the key of D?

Ans. Two sharps, F♯ and C♯; because the *scale* of D has the same sharps.

256. What is the signature of the key of A?

Ans. Three sharps, F♯, C♯, and G♯; because the *scale* of A has the same sharps.

257. What is the signature of the key of E?

Ans. Four sharps, F♯, C♯, G♯, and D♯; because the *scale* of E has the same sharps.

258. What is the signature of the key of B?

Ans. Five sharps, F♯, C♯, G♯, D♯, and A♯; because the *scale* of B has the same sharps.

259. What is the signature of the key of F♯?

Ans. Six sharps, F♯, C♯, G♯, D♯, A♯, and E♯; because the *scale* of F♯ has the same sharps.

260. What is the signature of the key of C♯?

Ans. Seven sharps, F♯, C♯, G♯, D♯, A♯, E♯, and B♯; because the *scale* of C♯ has the same sharps.

261. By what other name may the group of sharps be called, and why are they placed at the beginning of a composition instead of scattered through it as in diagram of scales in Chapter XXI?

Ans. They are called groups of sharp sevenths, and are placed at the beginning for convenience.

262. What do they signify?

Ans. That every note throughout the piece, that occupies a line or a space on which there is a sharp at the beginning, must be sharped in playing, unless the cancel sign is found, in which case the sharp on that line or space is cancelled. The cancel, however, comes as what is termed an accidental[1] at this point, and like all accidentals, has no power beyond the measure in which it appears, unless the note which it affects is the last in that measure and is tied to the first note in the next measure.

263. What is the signature of the key of F?

Ans. One flat, B♭; because the *scale* of F has only one flat, B♭.

264. What is the signature of the key of B♭?

Ans. Two flats, B♭ and E♭; because the *scale* of B♭ has the same flats.

265. What is the signature of the key of E♭?

Ans. Three flats, B♭, E♭, and A♭; because the *scale* of E♭ has the same flats.

266. What is the signature of the key of A♭?

Ans. Four flats, B♭, E♭, A♭, and D♭; because the *scale* of A♭ has the same flats.

267. What is the signature of the key of D♭?

Ans. Five flats, B♭, E♭, A♭, D♭, and G♭; because the *scale* of D♭ has the same flats.

268. What is the signature of the key of G♭?

Ans. Six flats, B♭, E♭, A♭, D♭, G♭, and C♭; because the *scale* of G♭ has the same flats.

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[1] Accidentals are those sharps, flats, or naturals which occur *temporarily* in a composition. Until the close of the sixteenth century—according to certain laws—accidentals very rarely appeared in writing; it was necessary for the *singers* to introduce the semitones in their proper places during the performance.

269. What is the signature of the key of C♭?

Ans. Seven flats, B♭, E♭, A♭, D♭, G♭, C♭, and F♭; because the *scale* of C♭ has the same flats.

270. What are these groups of flats also called, and why are they placed at the beginning of a composition, instead of being scattered throughout as in the scale diagramed in Chapter XXI?

Ans. They are called groups of flat fourths and are placed at the beginning for convenience.

271. What do they signify?

Ans. That every note throughout the piece, that occupies a line or a space on which there is a flat at the beginning, must be flatted in playing, unless the natural or cancel sign is found. In that case, the note occupying that line or space is not flatted for one measure. (Exception, see same for sharps.)

272. How many minor keys are there?

Ans. Fifteen, a relative minor for each major key.

273. When are major and minor keys said to be related?

Ans. A major and a minor key are said to be related when they have more tones in common than this major key has with any other minor key, and more than this minor key has in common with any other major key.

274. How are relative major and minor keys situated with regard to each other?

Ans. A relative minor *key* or *beginning-note* is situated a *minor third below* the *key note* of its *relative major* scale.

275. What is the difference between the *signatures* of the major and minor keys?

Ans. There is no difference.

276. What is the relative minor of the key of C major?

Ans. A minor.

277. Why?

Ans. Because A is situated just a *minor third below* C.

278. What is the relative minor of the key of G major?

Ans. E minor. Why?

279. What is the relative minor of D major?

Ans. B minor. Why?

280. What is the relative minor of A major?

Ans. F minor. Why?

281. What is the relative minor of E major?

Ans. C♯ minor. Why?

282. What is the relative minor of B major?

Ans. G♯ minor. Why?

283. What is the relative minor of F♯ major?

Ans. D♯ minor. Why?

The relative minor of C♯ major is A♯ minor. Why?

284. What is the relative minor of F major?

Ans. D minor. Why?

285. What is the relative minor of B♭ major?

Ans. G minor. Why?

286. What is the relative minor of E♭ major?

Ans. C minor. Why?

287. What is the relative minor of A♭ major?

Ans. F minor. Why?

288. What is the relative minor of D♭ major?

Ans. B♭ minor. Why?

289. What is the relative minor of G♭ major?

Ans. E♭ minor. Why?

The relative minor of C♭ major is A♭ minor. Why?

290. Name the relative major keys of all minor keys.

291. Are all major and minor keys related?

Ans. They are not; only the major and minor keys which have more tones in common than any others (see 308) and the beginnings of whose scales are situated only a minor third from each other are said to be related. All others are foreign; e. g., all minor keys are foreign to the key of C major except the key of A minor.

292. What is a leading tone?

Ans. In sharps, and in the key of C, the leading tone is the seventh member of a minor and major scale raised by a sharp; in flats, the leading tone is raised by a natural. The *leading tone* is *situated* a *minor second below* the *minor* or the *major key note.* Ill., G♯ is the leading tone of A minor, because G is the seventh member of the scale of A minor. It is situated a minor second below the keynote of A minor, and leads to it. F♯ is a minor second below the keynote of G major and leads to it.

293. What is the leading tone of E minor?

Ans. D♯; because D♯ is the sharp seventh of E and leads to it.

294. What is the leading tone of B minor?

Ans. A♯. Why?

295. What is the leading tone of F♯ minor?

Ans. E♯. Why?

296. What is the leading tone of C♯ minor?

Ans. B♯. Why?

297. What is the leading tone of G♯ minor?

Ans. F double sharp. Why?

298. What is the leading tone of D♯ minor?

Ans. C double sharp. Why? The leading tone of A♯ minor is G double sharp. Why?

299. What is the leading tone of D minor?

Ans. C♯. Why?

300. What is the leading tone of G minor?

Ans. F♯. Why?

301. What is the leading tone of C minor?

Ans. B♮. Why?

302. How do leading tones make their appearance in a composition?

Ans. As an accidental sharp or natural.

Obs. 12. We assume that all pieces are written in major keys until they are found to be written in minor keys.

303. How may we determine whether a piece is written in a major or a minor key?

Ans. By the leading tones of some minors, and the sign for the minor (flat) third in other minor keys; and by the interval existing between the first note of the composition (if in flats) and the major key note decided by the signature. If the signature is sharps, and an accidental sharp is found, first see if it is a sharp, which — if placed with the sharps at the signature — will form another major key signature; if so, the piece is thrown into another major key temporarily. If the accidental does *not* assist in making another major key, it may be the leading tone of some minor key. We are then to find out if it is a relative of the major key whose signature is at the beginning, or whether it is a foreign minor. Ill., If the signature says F♯, and we find an "accidenntal" C♯ in the piece, by glancing at the signature sharp and at the accidental sharp we know instantly that the accidental can be placed with the signature sharp and temporarily make the major key D which has the two sharps, F♯ and C♯. In this case the accidental sharp

is the sign of a major key.[1] But if the accidental be D♯ instead of C♯, we know that it is the *leading* tone of a minor key (perhaps only temporarily), because D♯ and F♯ never make a signature.

304. If we find that this piece is written in a minor key, what minor is it?

Ans. E minor, because D♯ is the *leading* tone of E minor

305. Is it a relative or a foreign minor?

Ans. It is a relative minor of the major key signature, because E, being situated a minor third below G, is its relative, and D♯ the leading tone.

306. If we wish to know whether a piece is written in the key of C major or its relative, A minor, what do we do?

Ans. First, see if G, the leading tone of A minor, is sharped; if so, it is in the key of A minor. If G is *not* sharped, the piece is in C major, unless another accidental indicates a different key for that measure.

307. If the signature of the piece is flats, what does an accidental sharp indicate?

Ans. That the key is minor. All that we have to do in that case is to find out *which* minor key it is. The sharp is — in this case — a leading tone of some minor key. The key of C minor, and all minor keys in flats, can also be known by the appearance of the *flat* which *forms* the *first minor third* of a *minor scale.* Ill., E♭ is the flat that completes the first minor third in the scale of C minor. Therefore if E♭ is in a piece whose signature indicates the key of C major, it indicates that the key is C minor.

308. What flat forms the minor third of F minor?

Ans. A♭.

309. What flat forms the minor third of B♭ minor?

Ans. D♭.

310. What flat forms the minor third of D♭ minor?

Ans. F♭. The flat forming the minor third for A♭ is C♭; and the flat forming the minor third for G♭ is B double flat. Why?

311. When the signature of a piece of music is sharps and we find an accidental flat as we play, what do we understand?

Ans. That the key is minor. The flat forms the first minor third in some minor scale, and we at once begin searching to find out in which minor scale it is. To do this we go a minor third be-

[1] Many accidentals however which do not cause changes of the key will be found in pieces of all kinds.

low the flat. This gives the name of the key in which the piece is written. Ill., if the signature is the key of G major, and we find a B♭ in the piece, we know that the key is minor (flats and sharps are never mixed in a signature), and that it is G minor because B♭ is a minor third above G, or, B♭ *forms* the *first minor third* in the minor scale *begun* on *G*.

312. When the signature of a composition is flats, and we find an accidental flat as we play, what are we to understand?

Ans. That the accidental flat either changes the present major key into a new major key temporarily, or into a minor key.

313. If the accidental is a flat, how do we know in what key the piece is written?

Ans. By finding out (as in the sharps) whether the flat,— by being placed with the flats in the signature,— is the flat to make a new major key, or whether it makes the *minor third* in a *minor* key.

CHAPTER XXIII.

TRIPLET, SEXTOLET, AND EMBELLISHMENTS.

314. May a note be divided into more than two equal parts?

Ans. It may be divided into three or more equal parts.

315. When one note is divided into three equal parts, e. g., one quarter note divided into three eighths, or when three eighth notes are to be played in the time of one quarter note, what is the group called?

Ans. Triplet, thus,

Ill.

316. What is a quintolet?

Ans. One note divided into five equal parts; or, five notes of equal length to be played in the time of one, thus,

317. What is a sextolet?

Ans. A note divided into six equal parts; or, six notes of equal length played in the time of one note, thus,

Ill.

318. What is a septolet?

Ans. A note divided into seven equal parts; or, seven notes of equal length played in the time of one note, thus,

Ill.

319. What is a nonolet?

Ans. A note divided into nine equal parts; or, nine notes of equal length played in the time of one note, thus,

Ill.

320. What is an appoggiatura?

Ans. It is a small or grace note placed before a larger one to serve as an embellishment.

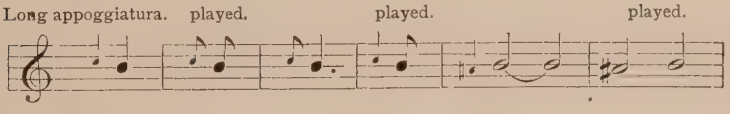
321. How many kinds of appoggiaturas are there, and what are they?

Ans. Two; the long and the short appoggiatura.

322. What is a long appoggiatura?

Ans. It is a grace note which requires, when played, never less than half the value of the note before which it is placed, and is struck simultaneously with the chord which it graces. When placed before a dotted note it takes two-thirds of the combined value of the note and dot. When placed before a note which is tied to another, it takes the entire time of the principal note.

Ill.



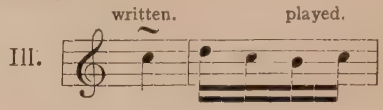
323. What is a short appoggiatura?

Ans. It is a grace note which has a dash through its flag and stem, and takes a very small value from the note before which it is placed. It begins with the principal note of the chord before which it is placed and is played as quickly as possible, thus,

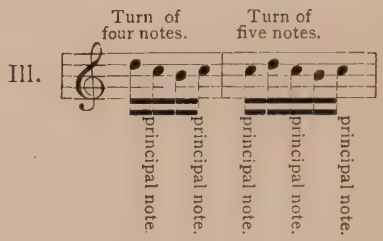
Ill.

324. What is a turn?

Ans. A turn consists of a principal note and two auxiliary notes lying next to it, above and below, respectively. Its sign is this ~ placed above or below the note.



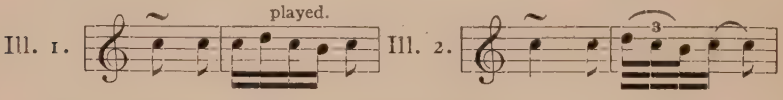
In some turns the principal note is *repeated twice*, and in others *three* times, therefore some are said to contain more notes than others. In a turn of four notes the principal note usually appears twice, while in a turn of five notes the principal note appears three times.



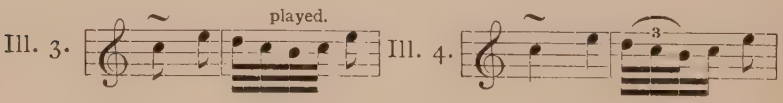
325. At what time may a turn begin?

Ans. The exact time for the turn to begin has not been fixed; it may begin with the principal note, and it may be soon after, or later.

It begins with the principal note if the *next note* is of the *same* pitch and of the value of an *eighth* or less, and the turn sign stands directly above the principal note; the turn then consists of four notes of equal length as at Ill. 1; but *if* the *written* note is *longer* than an *eighth*, the turn begins with the *next scale* tone above it, and the first three notes of the turn are played rapidly, and a pause is made on the last, which is the principal note as at Ill. 2.



When the turn sign stands directly above a note of the value of an eighth or less, and the *next* note is of a *different* pitch, the turn consists of four notes of equal length, and begins with the *next scale* tone above as at Ill. 3; but if the principal note is longer than an eighth, the first three notes are played rapidly, and a pause is made on the last or principal note as at Ill. 4.

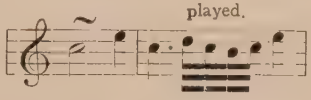


When the turn sign stands a little to the right of a quarter or an eighth note, and the *next* note is of the *same* pitch, the turn consists of three notes of equal length, and begins *with* the *last half* of the *principal* note as at Ill. 5; but if the principal is *longer* than a quarter, the turn begins *with* the *last fourth* of the value of the note as at Ill. 6.

Ill. 5. Ill. 6.

When the turn sign stands a little to the right of a quarter or an eighth note, and the next note is of a *different* pitch, the turn consists of four notes of equal length, and begins *with* the *last half* of the value of the *principal* note as at Ill. 7; but if the principal note is longer than a quarter, the turn begins with the *last fourth* of the value of the note as at Ill. 8. The former is played rather slow, and the latter rather fast.

Ill. 7.

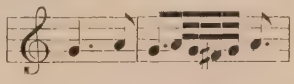
Ill. 8. 

A turn follows a note when the sign stands to the right of it.

The turn on the written note and the one following it are frequently expressed by small grace notes instead of the sign; for the turn *on* the note, three small grace notes are placed before the principal note, but played in the rhythmical value of the note; and for the turn *following* the note four grace notes are required.

In modern music, this method is used in preference to the sign.

When the turn stands a little to the right of a dotted note, and the following note is of half the value of the principal note, the turn closes with the time of the dot, and the other turn notes are played quick or slow according to the movement of the piece as at Ill. 9.

Ill. 9. 

If the dotted note represents a full bar of either simple triple, or compound double time, or is *followed* by *two short* notes, the turn is played in the *time* of the *dot*.

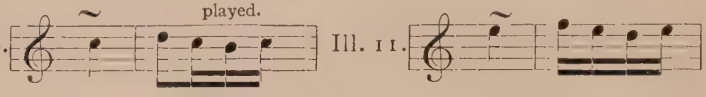
There is an occasionally found turn which is played *before* the note over which the sign stands, and the *written* note *forms* the *last note* of the turn. This turn really begins *with* the *last half* of value of the *preceding* note.

If the sign stands above a note that follows a dotted note of the same name, the turn is made *on* the note.

The auxiliary notes of a turn are always the next scale degree above and below the principal note, the interval being either a major or a minor second.

The interval of the upper auxiliary is usually a major second, but its size is governed by the *scale* position of the *principal* note. Thus in the scale of *C* a turn made on the *first degree* of the *scale*, the upper auxiliary is a major second, while the interval of a turn on the *third* member of the *same scale* is a minor second.

Ill. 10. played. Ill. 11.



The interval of the lower auxiliary is usually a minor second, but its size is governed generally by that of the *upper* interval; i, e., when the upper interval is a major second, the lower one is a minor, and the reverse.

There are occasionally found turns both of whose intervals are major seconds, but they are usually written in full, and not represented by the sign.

There are also turns in which both intervals are minor seconds: one is indicated by accidentals above and below the sign, thus, ♭ ~, ~ ♯, ♭ ~ ♯. An accidental above the sign refers to the *upper* auxiliary, and the one *below* to the lower auxiliary. Another is made on the fifth degree of the minor scale, therefore does not require the use of chromatics.

These are termed chromatic turns because their tones form a part of a chromatic scale.

A turn of five notes beginning with the principal note, and the upper interval of the auxiliary a major second, is sometimes indicated by the compound sign ~ standing directly above the note.

When a turn begins with the lower auxiliary, it is said to be inverted, and the sign stands thus ∽ or ∽; however, it is frequently written in small notes instead of represented by the sign.

326. What is a trill?

Ans. It is the very rapid, alternate playing of two notes whose interval is either a major or a minor second, according to its scale position—usually concluding with a turn.

The exact date of its introduction is not known, but it was formerly known as a shake, and received the name of trill early after the sixteenth century. It was first sung.

The sign in modern music is *tr* followed by a wave line, ~~~ if it stands above a long note.

In older music ~~, ~~~, *tr* and + standing above or below a note are used.

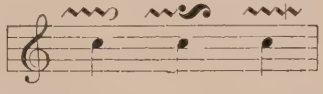
327. On which note does the trill begin?

Ans. There are two ways of rendering it, which leads to a diversity of opinions as to which is the best to adopt: one begins with the principal note, and the other with the upper subsidiary note.

The earlier masters preferred to begin with the upper note, and the modern ones prefer the principal note, which more satisfactorily places the accent. However, a trill at the beginning of a phrase, or after a rest, or a downward leap, or when preceded by a note one degree below it, *begins on* the *principal note;* it is usual also to begin on the principal note when it is preceded by a note one degree above it unless it is preceded by an appoggiatura, or the preceding note is slurred to it: in the last two named cases the trill begins with the upper note. When the preceding note is a short note of the same name, the trill begins on the upper note, unless the preceding note is marked staccato; in which case it begins on the principal note.

When a trill in modern music begins with the upper note, the principal note is usually preceded by a grace note. This is also occasionally found in older music. In *ascending* passages the trill usually ends with a turn; but it is generally *not required* in *descending* passages, *especially* if the *trill note* is *dotted* and *followed* by a *note one degree lower*. On very short notes no turn is required.

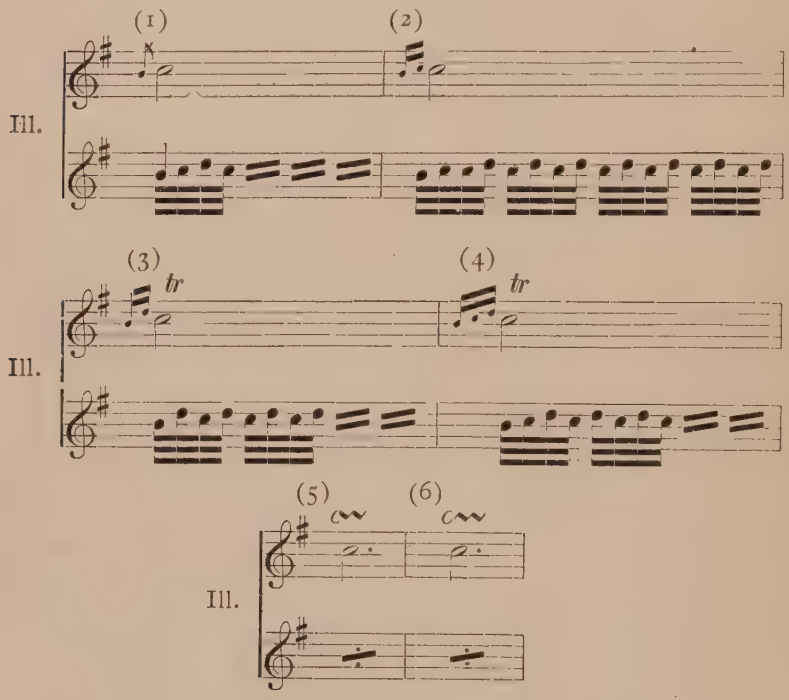
In modern music the turn of a trill is indicated by two small grace notes, or by two notes of ordinary size immediately following the trill note; and in old music a small downward curve, or the regular turn sign placed at the end of, or a vertical stroke through the shake sign.


Ill.

The *beginning* of a trill is varied according to its *prefix;* the lower prefix is generally used in modern music, and consists of a *lower* subsidiary note *prefixed* to the *principal* note — if the trill

begins with the *principal* note: or, of *two* notes, lower and principal, prefixed to the upper note — if the trill begins *on* the upper note.

In modern music it is indicated by one, two or three small grace notes prefixed to the trill note, as at Ills. 1, 2, 3, and 4; and in old music by a downward curve from the beginning of the trill sign placed above the trill note, as at Ill. 5. The upper prefix is known by the trill sign having an upward turned curve at the beginning, as at Ill. 6, but it is not found in modern music.

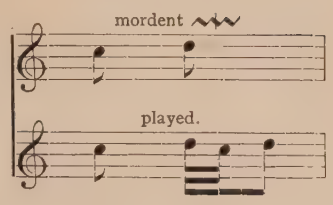


328. What is a mordent?

Ans. It consists in the rapid alternate playing of the principal or written note, with the note one degree below it. The interval is generally a minor second, and to obtain it an accidental is frequently placed with the mordent sign, thus, , above the written note. (The preceding accidentals diminish the size of this interval, while a flat would augment it; therefore the latter cannot be used in a case of this kind.) Should the sign *not* appear, the change must be made by the player.

However, when the principal note is either preceded or followed by a note one degree *below* it, and generally when the principal note is the *third* or *seventh* member of the scale, the interval is a major second.

Ill.



There are two kinds of mordents: viz., the single or short mordent, and the double or long mordent. The former consists of three notes, and is indicated by this ; the latter consists of five notes — usually, and may contain more should the principal note be a very long one, — and is indicated by . Both kinds begin *with* and end *on* the principal note, and take only a part of the value of the written note; an accented pause being made on the last note for the remaining value.

Observe the similarity and yet the difference between the mordent sign, thus, and the trill signs, and : one of the latter is without the vertical stroke, and the other has the stroke through its *last* point; while the former has the vertical stroke near its center.

329. What is the Pralltrill?

Ans. It is like the mordent except that the subsidiary note is one degree above the principal note, and its sign is without the vertical stroke, thus,

Ill.

One of the graces called the schneller is exactly the same as the Pralltrill, though it is written with two small grace notes before the principal note, thus, Schneller. instead of a sign above its note.

CHAPTER XXIV.

TRANSPOSITION.

330. What is transposition?

Ans. It is the process of representing a scale or composition in a lower or higher key than the one in which it was first written.

331. By what means is this accomplished?

Ans. Strictly according to the kind of intervals used in the composition. Thus, suppose the composition to be written in the key of C, and begins on C, then moves a major third up to E, then a minor second up from E to F, then a minor third down from F to D, then a perfect fourth up to G, then a perfect fifth down to C, the starting point, and up an eighth or perfect octave to C. If we wish to write the same piece in the key of G, we first place a sharp on the fifth line at the signature place, and as the beginning note of the first piece is C, — the *first* member of that *scale*, — we also begin the new key on the *first* member of *its scale* by placing the first note on *second* line G.

Next, the voice in key of C moves up a major third to E; we also move up a major third from our starting point G, which brings us to B. The voice in C moves up a minor second to F; we also move up a minor second from B, which brings us to C. The voice in key of C moves down a minor third from F, which brings it back to D. We also move down a minor third from C, which brings us back to A. The voice in C key then moves up a perfect fourth to G, and we move up a perfect fourth from A, which brings us to D. The voice in C moves down a perfect fifth to C; we also move down a perfect fifth, which brings us back to G, our starting point. The voice in C key moves up a perfect octave to C, therefore we move up a perfect octave from G and arrive at G again.

Ill.

By playing both, we find that they sound alike. The only difference is, that one is pitched higher than the other. The piece may be put into any key. Be careful to get the starting right, and then proceed strictly according to the intervals as they come.

CHAPTER XXV.

FIRST STEPS IN HARMONY, COMMONLY CALLED THOROUGH BASS.

332. What is thorough bass?

Ans. Thorough bass treats of chords, their formations, relations, positions, and inversions. (For inverting chords or triads, see same for "Intervals," Chapter XX.)

333. In thorough bass or harmony, what are the names given the different members of the scale?

Ans. Tonic, dominant, sub-dominant, super-dominant, sub-tonic, super-tonic, and mediant.

334. What is the tonic of a key?

Ans. It is the tone upon which the key or scale is founded, or on which it begins. It is called the fundamental. Ill., In the key of C, C is the tonic. In the key of G, G is the tonic. In the key of D, D is the tonic, and so on with every key.

335. What is the super-tonic?

Ans. As super means "above or over," super-tonic means the above or high tonic, and is the tone *next above* the *tonic*. Ill., In the key of C, D is the super-tonic. In the key of G, A is the super-tonic, etc.

336. What is the sub-tonic?

Ans. It is the next tone or degree below the tonic. Ill., In the key of C, B is the sub-tonic; in the key of G, F is the sub-tonic, etc. Thus, we have the three tonics, viz., tonic, super-tonic, and sub-tonic. In the key of C, C is the tonic, D the super-tonic, and B the sub-tonic.

337. What is the dominant of a key?

Ans. It is the fifth member of the scale, counting upward from the tonic. Ill., In the key of C, G is the dominant. (To locate these scale members, count upward from the tonic.)

338. What is the super-dominant?

Ans. It is the sixth member of the scale. Ill., In the key of C, A is the super-dominant.

339. What is the sub-dominant?

Ans. It is the fourth member of the scale. Ill., In the key

ot C, F is the sub-dominant. Three dominants, viz., dominant, super-dominant, and sub-dominant.

340. What is the mediant?

Ans. It is the third member of the scale. Ill., In the key of C, E is the mediant.

341. Name the tonic, sub-tonic, and super-tonic in the key of G.

342. Name the tonic, super-tonic, and sub-tonic in each of the following keys: D, A, E, B, F♯, C♯, F, B♭, E♭, A♭, D♭, G♭, and C♭.

343. Name the dominant, sub-dominant, and super-dominant in each of the following keys: G, D, A, E, B, F♯, C♯, F, B♭, E♭, A♭, D♭, G♭, and C♭.

344. Name the mediant in each of the following keys: G, D, A, E, B, F♯, C♯, F, B♭, E♭, A♭, D♭, G♭, and C♭.

345. What is a chord?

Ans. It is two or more tones combined to be struck simultaneously, and so arranged as to produce harmony.

346. What is the root of a chord?

Ans. It is the degree or tone upon which a chord is built. Ill., In the chord of C, C is the root; in the chord of G, G is the root; in the chord of D, D is the root.

347. What is a triad?

Ans. It is a chord formed of the fundamental tone or root, its third and fifth. Ill., In the key of C, to build a triad on C, take C, the fundamental tone, and add to it E, the third above C; and to this add G, the fifth above C. Thus we have the triad C, E, G. The triad contains one major third and one minor third. Ill., C up to E, major third; E up to G, minor third.

348. Name the tones forming the triad built on the dominant in the key of C.

Ans. G, B, D.

349. Name the tones forming the triad built on the super-dominant in the key of C.

Ans. A, C, E.

350. Name the tones forming the triad built on the sub-dominant in the key of C.

Ans. F, A, C.

351. Name the tones forming the triad built on the super-tonic in the key of C.

352. Name the tones forming the triad built on the sub-tonic in the key of C.

353. Name the tones forming the triad built on the mediant in the key of C.

354. On which tones or members of a key are the principal chords built?

Ans. On the first, fourth, and fifth; i. e., tonic, sub-dominant, and dominant.

355. What are the chords built on these scale members called?

Ans. Chords of the first, fourth, and fifth.

356. Why?

Ans. Because the chord built on each member is a separate and distinct chord from the others.

357. Why are they called principal chords?

Ans. Because they are built on the principal tones of a key, are major chords, and together contain all the tones of the key.

358. Why are they also called major chords?

Ans. Because the first third in the chord is a major third. Ill.,

A chord built on C requires C, E, G, — C up to E, the major third.

A chord built on F requires F, A, C, — F up to A, the major third.

A chord built on G requires G, B, D, — G up to B, the major third.

The remaining third in each of the chords is minor.

359. What is a consonance in music?

Ans. It is the most agreeable sound produced by the combination of certain tones.

360. How many classes of consonants are there?

Ans. Two, viz., perfect and imperfect.

361. What are perfect consonances?

Ans. All perfect intervals, i. e., perfect fourths, perfect fifths, and perfect unisons.

362. What are imperfect consonances?

Ans. Those consonances which are not quite so agreeable to the ear as perfect consonances; they are major and minor thirds; their inversions are minor and major sixths.

363. What is a dissonance?

Ans. A sound that is not agreeable, produced by the combi-

nation of certain tones, viz., All seconds, diminished and augmented thirds, diminished and augmented and — sometimes — perfect fourths, and diminished, minor, and major sevenths.

364. What is the use of dissonances?

Ans. They serve to enhance the beauty of the consonances with which they are thrown in a musical composition.

365. How many grand classes of triads are there?

Ans. Two, consonant and dissonant.

366. What is a consonant triad?

Ans. A triad whose fifth is perfect.

367. What is a dissonant triad?

Ans. A triad whose fifth is either augmented or diminished.

368. Into how many classes are consonant triads divided?

Ans. Two, major and minor.

369. What is a major triad?

Ans. It is a triad which has a major third and a perfect fifth. Each major key has three major triads, built respectively on the first, fourth, and fifth members of the major scale.

370. What is a minor triad?

Ans. A triad which has a minor third and a perfect fifth. Each major key has three minor triads, built respectively on the second, third, and sixth members of the scale, and called triads of the second, third, and sixth.

371. Into how many classes are dissonant triads divided?

Ans. Two, augmented and diminished.

372. What is an augmented triad?

Ans. A triad which has a major third and an augmented fifth.

373. What is a diminished triad?

Ans. A triad which has a minor third and diminished fifth.

374. Build consonant triads, both major and minor, on each of the following scale members: C, D, E, F, G, A, and B. Invert each. (For inverting triads, see same for "Intervals," Chapter XX.) Build dissonant triads, both augmented and diminished, on each, C, D, E, F, G, A, and B. Invert each.

CHAPTER XXVI.

HARMONY — (CONTINUED).

375. When is a chord said to be in tonical harmony?

Ans. When it is founded or built on the first member or tonic of any scale. Ill., In key of C, a chord built on C is in tonical harmony; or if built on G in the key of G, it is in tonical harmony.

376. When is a chord said to be in super-tonical harmony?

Ans. When it is built on the second member or super-tonic of the scale. Ill., In the key of C, the chord built on D is in super-tonical harmony.

377. When is a chord said to be in sub-tonical harmony?

Ans. When it is built on the seventh member or sub-tonic of the scale. Ill., In the key of C, a chord built on B is in sub-tonical harmony.

378. When is a chord said to be in dominant harmony?

Ans. When it is built on the fifth member or dominant of the scale. Ill., In the key of C, a chord built on G is in dominant harmony.

379. When is a chord said to be in super-dominant harmony?

Ans. When it is built on the sixth member or super-dominant of a scale. Ill., In the key of C, a chord built on A is in super-dominant harmony.

380. When is a chord said to be in sub-dominant harmony?

Ans. When it is built on the fourth member or sub-dominant of the scale. Ill., In the key of C, a chord built on F is in sub-dominant harmony.

381. When is a chord said to be in mediant harmony?

Ans. When it is built on the third member or mediant of a scale. Ill., In the key of C, a chord built on E is in mediant harmony.

382. How many classes of chords are there?

Ans. Two; simple or common chords, and chords of the seventh. All other chords are derived from these.

383. What is a common chord?

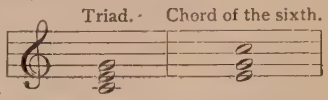
Ans. Any chord containing not more than three tones is a

common chord. A triad is a common chord; but not all common chords are triads, because a triad must always consist of the fundamental, its third and fifth, while common chords are formed with various intervals. There are consonant and dissonant chords.

384. What is a chord of the sixth?

Ans. A chord composed of its base, third, and sixth — from the root — is a chord of the sixth; and is the first inversion of the major triad, thus,

Ill.



385. What is a chord of the sixth, fourth, or six-four chord?

Ans. It is a chord which is composed of its base, fourth and sixth above the base. It is easier to say six-four chord than sixth-fourth. Figured thus, $\frac{6}{4}$.

386. How many inversions is a common chord capable of?

Ans. Two only.

CHAPTER XXVII.

HARMONY — CHORDS: THEIR POSITIONS, INVERSIONS, ETC.

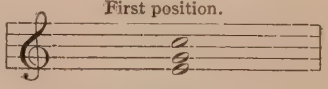
387. How many positions has a chord?

Ans. Three; first, second, and third.

388. When is a chord said to be in its first position?

Ans. When its root or fundamental is the highest tone. Ill., In the key of C, the simple chord, C, E, G, to be in the first position, must read E, G, C, thus,

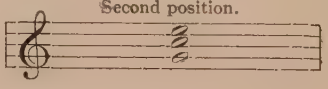
Ill.



389. When is a chord said to be in its second position?

Ans. When its third is the highest tone in the chord. Ill., In the key of C a chord in second position reads G, C, E, thus,

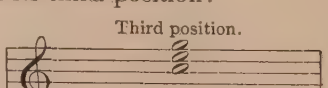
Ill.



390. When is a chord said to be in its third position?

Ans. When its fifth is the highest tone in the chord. Ill., In the key of C a chord in this position reads C, E, G, thus,

Ill.

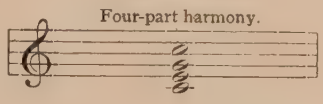


Obs. 13. It is to be remembered that in the preceding chapters, soprano, alto, tenor, and bass are mentioned as voices. They are also called parts in music. In the study of thorough bass, so far, we have used only three voices or "parts" in building triads or simple chords.

391. If there are only three parts in a chord, and we desire to have a chord of four parts or four-part harmony, how do we obtain it?

Ans. By duplicating (doubling) one of the tones. Ill., If we have a chord of three tones, C, E, G, and we desire a fourth part or tone, we use C, E, G, and C again. C, E, G, C, thus,

Ill.



392. As it is not permissible to duplicate all of them, which is it best to use again?

Ans. The fundamental or root of the chord.

393. Which is next best to duplicate?

Ans. The fifth.

394. Which one is it rarely permissible to double?

Ans. The third. (Sometimes done in minor chords, but very rarely in major.)

395. Should the third ever be omitted from a chord?

Ans. Never.

396. Which part may be omitted sometimes?

Ans. The fifth.

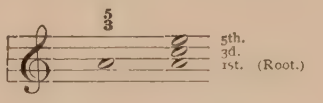
397. How are the four voices arranged on the staff?

Ans. The bass is lowest, soprano highest, alto next to soprano, and tenor between alto and bass.

398. Why are figures sometimes placed above or below a certain bass note on the staff?

Ans. To indicate the kind of intervals to be used in the chord that is to be formed on the note thus placed. These figures tell us that the third and fifth above the root or fundamental note are to be used in the chord. The figures above a note, thus,

Ill.



tell us that the third, fifth, and eighth tones above the root are to be used in the chord.

Ill.

399. What do the following figures above a note indicate?

$\frac{6}{3}$ $\frac{5}{3}$ $\frac{8}{3}$

Ans. That the third and sixth, third and fifth, third and eighth members from the *root* are to be in the chord.

400. When no figures are seen, what are we to understand?

Ans. That the triad of the note which is seen is to be played.

401. When is a chord said to be in direct position?

Ans. When the root of the chord is lowest.

402. When is a chord said to be in its first inversion?

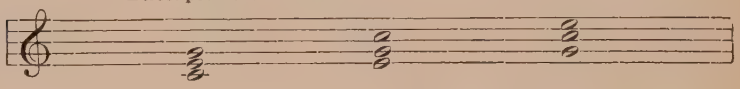
Ans. When the third from the root takes the bass. It is figured thus, $\frac{6}{3}$ or 6.

403. When is a chord said to be in its second inversion?

Ans. When the bass is fifth from the root. It is figured $\frac{8}{6}$ or $\frac{6}{4}$. It is best to double the fifth in this inversion, because the fifth is the bass.

Direct position. First inversion. Second inversion.

Ill.



404. Do passages ever occur in which no chords are found?

Ans. Yes, and are called "Unison" passages.

405. When a sharp, flat, or a natural is placed above a bass note, what do we understand?

Ans. That the third above the bass note is to be sharped, flatted, or restored by the natural. A sharp, flat, or natural placed before a figure shows that the interval from the bass note indicated by the figures is either to be sharped, flatted, or restored by the natural. When a dash thus — is placed *after* the figure, — on a line with it, — the tone indicated by the figure must be repeated in the chord of the *note* over which the dash is placed.

406. How is a chord of the seventh formed?

Ans. It is a simple chord of four tones, or a triad with the interval of the seventh from the root added, and can have four positions: viz., direct position, first, second, and third inversion. [It is to be noticed that a chord of the seventh has more than three tones, therefore it can have three inversions besides the direct position; while a chord of the sixth has only three tones, consequently it can have only two inversions.]

407. Which tone forms a chord of the seventh on C triad?

Ans. B♭. Ill., C, E, G, B♭. Build chords of the seventh on every key tone.

408. What is the dominant seventh?

Ans. It is a simple chord or triad founded on the dominant of a key, and the seventh tone (minor seventh) above the dominant added. Ill., For a chord of the dominant seventh in the key of C, take G, B, D, and add to it F, the seventh from the dominant; and have G, B, D, F. Its figures are $\frac{7}{5}_{3}$ or simply 7.

409. Build chords of the dominant seventh on the dominant of every key.

410. Of how many inversions does the dominant seventh chord admit?

Ans. Three.

411. When is it in its first inversion?

Ans. When the third is bass in the chord. It is figured $\frac{6}{5}_{3}$ or $\frac{6}{3}$.

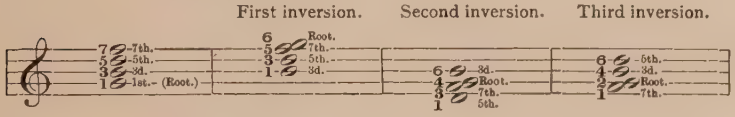
412. When is it in its second inversion?

Ans. When the fifth is bass in the chord. It is figured $\frac{6}{4}_{3}$ or $\frac{4}{3}$.

413. When is it in its third inversion?

Ans. When the seventh is bass in the chord. It is figured $\frac{6}{4}_{2}$ or simply $\frac{4}{2}$.

Illustrations of dominant seventh inversions:



Obs. 14. If the figuring $\frac{6}{4}_{2}$, etc., becomes a little puzzling, bear in mind the *kind* of *intervals* required to form the *dominant* seventh chord, and *how* they are placed with regard to each other in different inversions. To get the figures before mentioned and seen in the diagram, count from the bottom note *up* in each inversion. (Like *left* row of figures in diagram.)

414. Is it necessary for all chords of the dominant seventh to contain certain intervals whether the key is major or minor?

Ans. It is.

415. Name them.

Ans. Major third, perfect fifth, and minor seventh.

416. Are there any other chords of the seventh in common use?

Ans. There are: viz., chords of the seventh, of the second, and seventh degrees of each of the major and minor keys. A minor third, perfect fifth, and minor seventh are the intervals that

form a chord of the seventh based on the second degree of the major scale. Ill., In key of B♭, C, E, G, and B♭ are the tones used. A minor third, diminished fifth, and minor seventh form a chord of the seventh based on the seventh degree of the major scale. Ill., Key of C; C, E♭, G♭, and B♭ are the tones used. The soprano is always the seventh in the last-named chord.

417. Which inversion of the chord of the seventh formed on the second degree of the major scale is most frequently used?

Ans. The first inversion.

418. How are chords of the seventh based on the second and seventh degrees of a minor scale formed?

Ans. A chord of the seventh on the second degree of the minor scale is formed by using a minor third, diminished fifth, and minor seventh. Ill., In key of A minor, B, D, F, and A are the tones used. A chord of the seventh based on the seventh degree of the minor scale is formed of a minor third, diminished fifth, and diminished seventh. Ill., In key of A minor, the tones used are G♯, B, D, and F. This is called a chord of the diminished seventh.

419. Are there any compound interval chords?

Ans. Yes. Chords of the ninth and — as some theorists are pleased to call them — elevenths and thirteenths; but chords formed of intervals greater than an eighth or octave (like the intervals themselves, no greater than this) are not in common use. (See chapter on Intervals.)

420. What intervals form a chord of the ninth?

Ans. It is simply a chord of the seventh with the interval of a ninth from the dominant added. Ill., G being the dominant in the key of C, G, B, D, F is a chord of the seventh on the dominant. Add the ninth from G, which is A, and you have G, B, D, F, A, a chord of the ninth, and is figured thus, $\frac{9}{7}$. The seventh is used to prevent this chord from being confused with suspensions frequently seen.

421. On what member of the scale is it most frequently based?

Ans. On the dominant. Very seldom on any other.

It is important to bear in mind that this is a major chord if founded on a *major* key, and a minor chord if founded on a *minor* key.

422. Is any member of a chord ever omitted?

Ans. Yes, the fifth is frequently omitted in harmony of four parts, because it is not good in all cases for two perfect fifths to

occur in one chord; and in this chord one fifth occurs between the first and the fifth, and another fifth between the fifth and ninth chord members.

423. Of how many inversions does this chord admit?

Ans. Three.

424. What is the first inversion?

Ans. When the third becomes the bass of the chord.

425. What is the second inversion?

Ans. When the fifth is bass.

426. What is the third inversion?

Ans. When the seventh is bass.

427. What are the so-called chords of the eleventh and thirteenth?

Ans. They are formed in the same manner as the chord of the dominant seventh or chord of the ninth. For a chord of the eleventh use the root, third, fifth, seventh, and ninth chord members, to which add the interval of an eleventh (from the root). For a chord of the thirteenth add an interval of a thirteenth (from the root) to the chord just mentioned.

These chords are seldom treated as fundamental harmonies, but theorists are pleased to class them as suspensions because their character is like that of a suspension.

428. What is a suspension?

Ans. It is omitting a tone that is proper to a chord, and in its stead holding one from the last chord played. The tone that is held, however, must be one that can find a proper place in the new chord, although it makes a dissonant tone for the time being.

429. What is the effect of chromatically altering intervals of the fundamental harmonies?

Ans. It gives a new chord formation, and in many cases also produces a modulation.

430. On what is the augmented triad based when it can be used without chromatic alteration?

Ans. On the third or mediant of a minor key; but it is usually formed on either the sub-dominant or tonic of a key, and admits of two inversions.

431. How many kinds of sixth chords are there besides the ones before mentioned?

Ans. Four, viz.: Neapolitan, Italian, German, and French sixth chords.

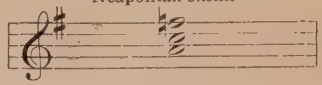
432. What is a Neapolitan sixth chord?

Ans. It is a sixth chord whose root is the second degree of the minor scale, and is composed of its bass, a minor third, and minor sixth. Observe that its root (the sixth from the bass) is chromatically lowered.

Illustration of Neapolitan sixth in key of E minor:

Ill.

Neapolitan sixth.



433. Which inversion of the super-tonic triad is it?

Ans. The first. Its root is chromatically lowered.

434. What is the Italian sixth chord?

Ans. It is the sixth whose root is the fourth degree or sub-dominant of the minor scale, and consists of an augmented sixth and a major third. Its root is chromatically raised, which gives the augmented sixth; therefore it is also called a chord of the augmented sixth.

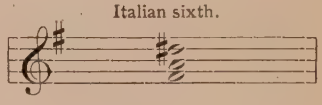
435. Which inversion of the sub-dominant triad in the minor scale is it?

Ans. The first. The fifth is doubled, and the root chromatically raised, which gives the augmented sixth.

Illustrations of Italian sixth in key of E minor. The root must be the highest note in the chord, thus,

Ill.

Italian sixth.



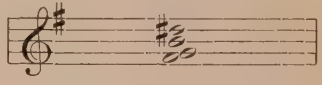
436. What is a French sixth chord?

Ans. Like the Neapolitan sixth, its root is the second degree or super-tonic of a minor key; but consists of its root, augmented sixth, the fourth and third above the root.

Illustration of French sixth in key of E minor:

Ill.

French sixth.



437. Which inversion of the seventh chord of the super-tonic is it?

Ans. The second. It differs from both the Neapolitan and Italian sixth in that its root is neither chromatically lowered nor raised, but the chromatic change takes place when the third from its root is sharped.

438. What is a German sixth chord?

Ans. Like the Italian sixth in this feature, its root is situated on the fourth degree of the minor scale, and together with its root, consists of the intervals of an augmented sixth, and a fifth above the root. The root is chromatically raised.

439. Which inversion of the chord of the sub-dominant seventh is it?

Ans. The first.

440. What is a cadence?

Ans. It is the chord or chords forming the close of a phrase, section, period, or entire composition.

441. How many kinds of cadences are there?

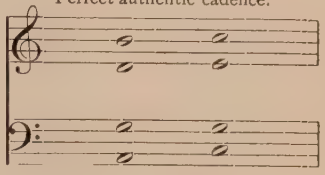
Ans. Six, viz.: Perfect authentic, imperfect authentic, perfect plagal, imperfect plagal, half and deceptive cadences.

442. What is a perfect authentic cadence?

Ans. It consists of a chord of the dominant followed by a chord of the tonic, and has the tonic for the highest or soprano note in the last chord, thus,

Perfect authentic cadence.

Ill.

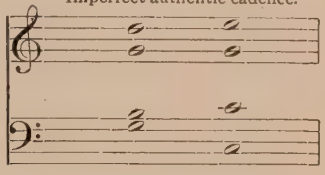


443. What is an imperfect authentic cadence?

Ans. It also consists of a chord of the dominant followed by a chord of the tonic; but in the chord of the tonic either the third or fifth member of the scale must be its highest note, thus,

Imperfect authentic cadence.

Ill.

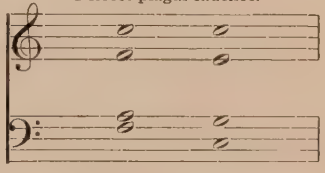


444. What is a perfect plagal cadence?

Ans. It consists of a chord of the sub-dominant followed by a chord of the tonic. The tonic is the highest note in the last chord.

Perfect plagal cadence.

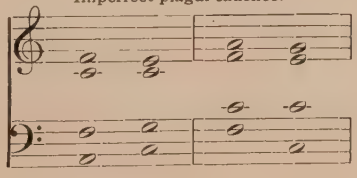
Ill.



445. What is an imperfect plagal cadence?

Ans. It consists of a chord of the sub-dominant followed by a chord of the tonic, but has the third or fifth member of the scale for the highest note in the last chord.

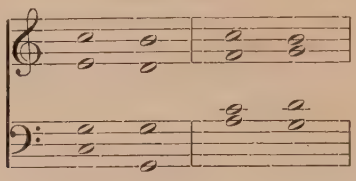
Imperfect plagal cadence.



446. What is a half cadence?

Ans. It consists of any chord followed by a chord of the dominant.

Half cadence.



447. What is a deceptive cadence?

Ans. It consists of a chord of either the dominant or dominant seventh, followed by any chord except a chord of the tonic.

CHAPTER XXVIII.

MODULATION.

448. What is modulation?

Ans. Modulation is passing from one key to another — backward or forward — gradually, by means of harmonies which are closely related. Unlike transposition, modulation does *not* change the *signature* of a composition. Transposition *changes* the *key* of a *piece throughout*, while modulation only changes the key *temporarily*, and comes back again to the original key without affecting either the signature or the pitch.

449. What is meant by related harmonies or chords?

Ans. When each of two chords contains one or more tones alike they are said to be related. Ill., In key of C the common chord built on C is C, E, G. In the key of G the common chord built on G is C, B, D.

450. Which one of the three tones mentioned is in both chords?

Ans. G.

The notes which are common to two chords are not only useful to connect two chords in the same key, but keep together a series of chords which forms a modulation.

451. How may we pass from the key of C to a key of sharps?

Ans. By sharping the seventh member of each next higher key, and immediately using the tones that form a chord of the tonic of each key, as we go, until we arrive at the key we desire to enter. Ill., to enter the key of G from the key of C, we sharp F, the seventh member of the key of G, and immediately use the chord of G, played either simultaneously or in broken form. Remember, the greater the number of sharps, the higher the key.

452. How may we pass from a key in sharps to a higher key in sharps?

Ans. By the preceding method (451).

453. How may we pass from a key in sharps to a lower key in sharps?

Ans. By placing a natural instead of the sharp on the seventh member of the scale in which we start, — and of each next lower scale, — and immediately using the tones that form a chord of the tonic of each next lower key, as we go, until we arrive at the key we desire to enter. Ill., If we are in the key of D, and desire to enter the key of G, we place a cancel on C, the sharp seventh of the key of D. This destroys the effect of that sharp, gives us C♮ instead of C♯, and immediately puts us in the key of G. Only one sharp — F, the sharp seventh of G — remains in the key.

454. How may we pass from a key in sharps to the key of C?

Ans. By the preceding method (453).

455. How may we pass from a key in sharps to a key in flats?

Ans. By the method given in 453, until we arrive at the key of C; then proceed as in 456, until we arrive at the key we desire to enter.

456. How may we pass from the key of C to a key in flats?

Ans. By flatting the seventh member of the scale of C, and of each *next lower* key, and immediately using the tones that form a chord of the tonic of each following key, as we go, until we arrive at the key we desire to enter. Ill., to enter the key of F from the key of C, we flat B, the seventh member of the scale of C.

Remember that the flat seventh of one key is also the flat fourth of the next lower key, and that the greater the number of flats the lower the key. Observe the use of the term "flat fourth" in modulating *upward* in flats.

457. How may we pass from a key in flats to a *lower* key in flats?

Ans. By the preceding method (456).

458. How may we pass from a key in flats to the key of C?

Ans. By placing a cancel instead of a flat on the fourth member of the scale in which we start, and of each *next* higher key, immediately using the tones that form a chord of the tonic of each key, as we go, until we arrive at C. Ill., If we are in the key of F, and wish to enter the key of C, we place a cancel on B, the fourth member of the scale of F. This destroys the effect of that flat, and immediately enables us to play with smoothness the chord of the tonic in the key of C.

459. How may we pass from a key in flats to a higher key in flats?

Ans. By the preceding method (458).

460. How may we pass from a key in flats to a key in sharps?

Ans. By the method given in 458 until we arrive at the key of C, and then proceed as in 451 until we arrive at the key we desire to enter.

Obs. 15. The cancel ♮ is used to pass from higher keys to lower ones, when playing in sharps; and also used to pass from lower keys to higher ones, when playing in flats.

461. What simple modulation is most commonly seen?

Ans. The modulation of a certain major key into its dominant. Ill., In the key of C, from C to its dominant, G. In the key of G, to *its* dominant, D, and back again to the tonic. It is usual also in simple accompaniments to begin on the tonic of a given key, modulate up to the dominant, back to the tonic, then perhaps to the sub-dominant, then into the dominant again, and back again to the tonic.

In accompaniment playing these changes are made according to the turn the melody takes. However, a piece must always close with a consonant chord of the tonic. A perfect authentic cadence is usually required.

CHAPTER XXIX.

FORM.[1]

462. What is form in music?

Ans. It is that part of the science of music which treats of ideas formed into phrases, sections, and periods. The structure of a composition is called its form. Every material thing has shape or form. The form of one thing is beautiful, while that of another is ugly. Symmetry is lacking in the latter, therefore its form is ungainly; nevertheless, the fact that it possesses a form cannot be denied. A musical composition, to be complete and beautiful, must have the ideas which are expressed in part by its measures, phrases, and sections, and wholly by its periods and period groupings, so arranged as to present a well-developed whole.

The sense must be complete and entirely satisfactory to the ear.

One or several notes in a measure suggest an idea in sound.

A certain number of measures form a phrase. A certain number of phrases form a section, and a certain number of sections form a period or sentence.

Usually a composition contains several periods.

Simple church music is frequently an example of the one-period form.

There are fixed rules which govern these groupings in music as strictly as the rules of grammar determine correctness of speech.

463. What is a motive?

Ans. It is the note — or number of notes — in a measure which suggests an idea in music to be developed. It gives the subject.

464. What is a phrase?

Ans. It is usually two measures in which the sense is very incomplete. It partially asks a question, therefore excites expectation.

465. Does a phrase always begin with the first beat of a measure?

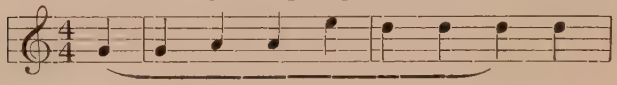
---

[1] The student is urged not to be content until he or she has carefully studied reliable special works on each of the following subjects: viz., Form, fugue, and counterpoint. Better still, strive to reach the point of studying them with a teacher.

Ans. Not always. Sometimes a composition begins with the *first beat* of a measure, sometimes with a *half* beat, or even the *smallest part* of a *measure* in which there are perhaps two counts, or one count, or a note which is only the *smallest fragment* of a *beat.* The same is true with a phrase. When a phrase begins with a broken measure that contains only one beat, or possibly a part of a beat, the phrase must end in the closing measure at the point corresponding to the point at which it began; e. g., if the piece is written in $\frac{4}{4}$ time, and begins in a broken measure which contains only one quarter note, the phrase begins with *that* quarter note, and ends just *at* (not including) the *last quarter* note in the *third* measure *from* the *beginning.*

An illustration of phrase beginning with a broken measure:

An illustration of phrase beginning with a broken measure.

Ill. 

466. What is a section?

Ans. Two phrases or four measures usually make a section in which the sense is better, but not yet complete. In it the question is either fully asked or fully answered. The first section satisfactorily asks it.

467. What is a period?

Ans. Two sections, four phrases, or eight measures usually form a period. In good composition, however, the lengths of periods vary. Sometimes they contain as many as forty or fifty measures. Each period contains a complete question and a complete answer, making a satisfactory close. The sense is complete.

468. How many kinds of periods are there?

Ans. Two: viz., simple and compound.

469. What is a simple period?

Ans. Two sections make a simple period.

470. What is a compound period?

Ans. It is the simple or same period repeated, after having been changed slightly and one or more other periods combined with it.

The period forming a compound period should have the same general character.

471. When are periods said to have the same general character?

Ans. When they have the same ruling motive, are in the same key, and are closed the same way, they are said to have the same general character.

472. What is meant by being well closed?

Ans. A period brought to a close by a perfect authentic cadence is said to be well or completely closed. *It* is *complete* form.

473. Do all periods close in the tonic?

Ans. They do not. In compound periods or forms sometimes the period does not close in the tonic, but leads off to some other key. *It* is *in*complete form.

474. What kind of music is usually written with one, two, or three periods?

Ans. The song-form, simple church music, and songs with choruses, have one, two, or three periods each.

475. Are songs and church music the only compositions which have the form of one, two, or three periods?

Ans. By no means. Any composition that contains several periods is said to be in "song-form," whether words accompany the notes or not, because the form is like that of a song.

Some compositions are so elaborate as to contain several "song-forms," each of which is so related to the other as to make a compound form or period.

476. In compound periods and forms, what is the first form called?

Ans. The "theme."

477. What is the second form called?

Ans. "Trio," usually.

478. What is the third form called?

Ans. Again the "theme."

479. Examples of this form are seen in what kind of compositions?

Ans. In most dance and parlor piano music.

480. What is a rondo?

Ans. It is a composition in which the period containing the theme or principal subject digresses and returns several times. It is a round or subject brought in again and again.

481. In what chord must a form always close?

Ans. The tonic.

482. What is the sonata form?

Ans. It is a form in which three or four separate forms are combined in one,— a grand working out of the compound period. Each one of these forms is called a movement; one of which, perhaps, is quick, another slow, and a third one very quick.

483. Is the sonata form highly valued among musicians?

Ans. It is the most highly valued of all forms.

484. Of how many movements may a sonata consist?

Ans. Sometimes three and sometimes four.

485. What is an overture?

Ans. It is a composition for the orchestra, and is used for an opening to the oratorio, opera, and concert. It is now also arranged for the piano, and has only one movement.

486. Of how many movements does a suite consist?

Ans. Generally of five. The sonata was derived from this form.

487. What is a concerto?

Ans. The concerto has three movements, and is arranged for either one or several instruments and an orchestral accompaniment.

488. What is a nocturne?

Ans. It is a calm and usually beautiful composition of the song-form.

489. What is a capriccio or caprice?

Ans. While it frequently has the form of the sonata, it is sometimes in the form of a fantasia and rondo.

490. What is counterpoint?

Ans. It is the art of harmoniously combining melodies to be rendered simultaneously. Originally it was point against point — punctum, contra-punctum — or counterpoint. (See chapter on Notes.) Now it is note against note, or note or voice above or below note or voice in the written science, but is still called counter-*point*. Ill., If a composition is in only two melodies, i. e., soprano and alto, the soprano notes are above or "against" the alto notes; and as counter means contrary, or opposite to, these lines of notes work contrary to each other, but are governed by certain rules.

491. What is a fugue?

Ans. It is a composition that has only one subject, but two or more voices or parts. One part imitates the other. Ill., In a composition of four voices the soprano may lead off with the subject

or air, and keep it for perhaps two measures. At this point the soprano drops the subject, and the alto takes it up just as the soprano had it, and carries it two measures; at which point the alto drops it, and the tenor takes it and carries it two measures and drops it. The bass then takes it and carries it two measures. At this point the soprano appears again and carries it another two measures; then follow alto, tenor, and bass as before, and the soprano has the subject again when the piece closes. At the same time that one voice has the subject the three remaining voices carry the three remaining parts. What is called imitation is in fugal style, each voice imitating the other in a phrase or period. There are many other ways of arranging the voices; this is but one example.

492. What is a canon?

Ans. It is a composition in which two or more parts appear with the melody one after the other, each one strictly imitating the one preceding. *Strictly*, in this, meaning note for note, interval for interval. The end aimed at is for all parts to have the same air before the piece closes. This style of composition is written strictly according to rule.

493. What names are given the sacred forms of vocal music?

Ans. Choral, hymn, anthem, cantata, motette, mass, and oratorio. A sacred tune of one, sometimes of two, simple periods to be sung by a congregation in one voice is a choral; while the anthem usually contains several periods, is more elaborate than a choral, was originally divided into parts, and was designed to be used in responsive service.

494. What is a motette?

Ans. A motette usually contains trios, solos, chorals, and fugues. It therefore has several movements. Another style of motette is more like a fugue.

495. What is a fantasia?

Ans. It is a composition in which the form, modulation, keys, etc., are left entirely to the composer's fancy, and is for a single instrument or for orchestra, and can be written for violins and pianos or other combinations.

496. What is a cantata?

Ans. It is a composition of combined forms, containing airs, choruses, and recitatives. It was not intended originally for a theatrical performance, and is rarely so used.

497. What is an oratorio?

Ans. It is the loftiest and grandest of all sacred music, and indeed of all musical compositions. It has besides its grand orchestral accompaniment, airs, recitatives, duos, trios, and choruses. It has the sonata form. The words and story are taken from the Bible, as a rule, though there are "secular" oratorios.

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